

THE MEDITERRANEAN LANDS

NORTH DAKOTA STATE UNIVERSITY



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THE MEDITERRANEAN LANDS

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THE MEDITERRANEAN LANDS

AN INTRODUCTORY STUDY
IN HUMAN AND HISTORICAL GEOGRAPHY

BY
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WITH SKETCH-MAPS



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PREFACE

WITH the increased interest in geography which has manifested itself in recent years, more and more stress is being laid upon the human side, that is, upon the study of the relation between groups of men and the characters of the lands in which they have established themselves. But this development of the subject has been, naturally enough, accompanied by not a little hostile criticism. There are those who say that the method lends itself to vague generalization, and takes too little account of human intelligence and ingenuity, of man's power of modifying his environment, and of evading what is sometimes loosely called geographical control. It cannot be denied that the danger of over-simplification exists, and as a measure of precaution it would appear eminently desirable that introductory studies, at least, should be strictly limited to areas where abundant facts are available in regard to both sides of the problem. That is, there should be at once full knowledge of the physical conditions, and of historical developments, before a serious attempt is made to establish correlations between them.

On both counts the choice of the Mediterranean Lands as a field for study is amply justified, and they have the further interest that the civilization which originated there

has spread throughout the greater part of the world. Just because of that fact, also, some study at least of the history and geography of the area is always included in the preliminary stages of the educational course, so that a background of elementary knowledge may be assumed.

Thus the purpose of this book may be defined as an attempt to show what is meant by human geography, and at the same time to trace the development of western civilization in relation to geographical conditions. It is intended primarily for the upper forms of schools in which the teaching of geography and of history is carried on along modern lines, and for university students of both subjects in the earlier stages of their course, while it is thought it may not be without interest for a wider circle of readers.

The sketch-maps used in illustration have been drawn by my sister, Miss Florence Newbigin, and have been purposely simplified so that they can at once be readily reproduced on the blackboard, and copied by pupils and students with additions and modifications. They are not intended to render useless the free use of atlases and large-scale maps, but rather as suggestions of methods of extracting from a detailed map the essential facts required to illustrate particular points.

Notes and suggestions on books for further study have been added at the ends of the chapters, but problems and questions on the subject matter have been relegated to the end, to avoid breaks in the continuity of the narrative for those using the book for general reading rather than for detailed study. Some of the questions referring to the earlier chapters raise points more fully treated in later sections. The object of this is not only to maintain interest,

but to drive home the conclusion—of which geographers are becoming increasingly conscious—that the significance of their subject lies, not in its separate facts, many of which have to be taken over from other sciences, but in that they have to be considered in their inter-relations, in a fashion attempted by no other branch of study. Students cannot acquire too soon the habit of linking the great facts of climate and relief with the life of man.

EDINBURGH, 1924.

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INTRODUCTION

Meaning of Civilization. The Sequence of Events in the Mediterranean Region. Contacts with Geography.

CIVILIZATION is a state best defined by what it implies. We cannot call a community civilized unless it is in the first place both stable and reasonably secure: stable in the sense that it is attached to a particular part of the earth's surface, and is able to maintain itself there continuously against possible attack; secure in that its members may be fairly certain that their prime needs of food, clothing and shelter will be satisfied, without excessive toil. When these conditions are present, there will be, as time goes on, a steadily increasing surplus, over and above the daily demand, and some at least of the citizens will have leisure—and desire—to pursue the study of science, literature and art. In other words, side by side with the material surplus, which we call capital, there will be an intellectual and spiritual inheritance, which is the property of all, and can be shared with other communities.

But if all civilization depends upon permanent settlement, then it is obvious that a knowledge of the art of tillage was a necessary preliminary to its origin. For it is abundantly clear that, rich though the earth is, there is no part of it where the natural resources are so great that they will continue to yield more than a bare margin of subsistence to a group of any size. Sooner or later hunters,

fishers and collectors of wild produce destroy their own economic basis, and are condemned to continual wandering to find new sources of supply.

Now we do not know definitely at what part or parts of the earth's surface man first learnt to cultivate, first began the slow and difficult process of converting relatively useless wild plants into highly useful ones. But it seems at least not unlikely that when north-western Europe was drowned in ice, early man found shelter in some of the valleys sloping southward from the Armenian mountain-knot, and there began to pick out from the rich flora plants which yielded something of use to him, and strove to promote the growth of these, as against the "weeds" which had nothing to offer. For we know that many of our valuable cultivated plants seem to have been derived from wild forms native to this region.

But whatever preliminary steps were taken here or elsewhere, it seems fairly certain that great advances were not made till man found his way into regions which offered to the cultivator the advantages of assured water supply, level land, easily cleared, and continuous fertility as the result of the fine silt brought down by the rivers in their yearly floods. Between the mountain wall of Persia and the dreary desert plateau of Arabia lies a broad trough, watered by the twin-streams of Tigris and Euphrates, and here, no less than in that other great valley of the Nile, some of the great lessons of cultivation must have been learnt.

Nevertheless the real cradle—if not the birthplace—of our civilization was in the lands immediately surrounding the Mediterranean Sea. To Jerusalem we owe our religion; to Athens, as the type of the free Greek city-states, an abiding stimulus in the realms of art, literature and science; to Rome our conceptions of justice, law and order, and the material basis of these in the laying-down of lines of communication, the building, that is, of the great Roman roads.

The Greeks showed, above all, an insatiable curiosity about nature and life, and a desire to find the perfect expression of the knowledge acquired. We may associate these characteristics with the fact that they worked out a system of cultivation, delicately and beautifully adjusted to the local climate and relief, by means of which it was possible to make a small area supply, generation after generation, the needs of a comparatively large but independent group, and leave to a minority at least the leisure to pursue the search for truth and beauty. They themselves described the olive, one of their primary crop-plants, as God-given ; which was but a way of saying that it seemed as if, without divine aid, their barren lands could scarcely have yielded food enough for man.

What Rome did was at once more and less. If her civilization had less of splendour, her glory was that she extended it over a far wider area. She was the great intermediary by means of which Mediterranean civilization reached the rest of Europe.

But if at first sight it is the achievements of Greece and of Rome which strike us most, a closer study of the sequence of events in Mediterranean lands shows us that the pageant of history here has unfolded itself in many scenes. More than this—we find again and again a period of splendour followed by tumult and confusion. As the tumult dies down a new grouping presents itself, has its moment of glory, and the curtain once more falls on strife. Finally, there comes a time when no new great actors appear, when the Mediterranean stage remains in gloom—actors and spectators have left the region for another and greater theatre.

For consider the broad outlines of history here. As the dawn breaks we see Egypt and Babylonia struggling with their irrigation problems, learning to grow corn on a great scale, using their great rivers—when they can—as highways

of communication, and sending caravans across the trackless desert. Then Babylonia at least is overwhelmed and the scene shifts.

Out of a period of world disturbance the cities of Phoenicia emerge. Their merchants learn to trust themselves to the broad waters of the Mediterranean, increasing the wealth of the world by exchanging the surplus of one grouping for that of another, and its knowledge by bringing the new west into touch with the older east.

Then comes the rise of Classical Greece, the growth of the free cities in mountain-girt but sea-fringed plains. In the calm *Ægean* they learn in their turn the great lessons of navigation, learn so fast that in the eastern Mediterranean at least they can compete with the Phoenicians on equal terms. Driven from the east the latter establish themselves more firmly in the west, and Carthage grows great.

Next Rome begins to expand in ever-widening circles, overwhelms the Greek communities, destroys Carthage, makes the Mediterranean area a unit, and strives ceaselessly to bring much of continental Europe within the Mediterranean orbit.

But the peoples of Europe react, and under the impact of the Goths and Vandals, with the Arabs advancing along the southern shore, Rome goes down and the Mediterranean world is once more filled with strife.

The lessons of the past, however, have not been wholly lost. The days when individual communities had to produce what they needed or do without have gone for the Mediterranean world. Its peoples know that to the shores of the sea can be brought the products of many different lands, and that by means of its waters these can be carried easily from point to point. So we see the rise of the great mediaeval trading-cities. The peoples of Amalfi, Venice, Pisa, Genoa and many other towns perceive that the west is eager to buy what the east has to sell, and can give some-

thing in return. Each exploits its advantages of situation, and Venice and Genoa attempt in a tentative fashion to establish a new type of supremacy, a control of the great highways of commerce.

Then new armies appear, menacing the Levantine coast, the area from which the trading-cities derive their wealth. From Asia Minor the Turks advance both into Europe, and down the coast of Syria into Egypt, cutting off the eastern from the western world, once more shattering the concept of Mediterranean unity. The ships of Venice return empty to port; but Vasco da Gama has already reached India. Though pirates infest the Mediterranean Sea the western world cares but little, for that sea is now but a pocket; the ships of commerce have left it for the wider oceans beyond.

Even summarized thus the story has drama enough, but it is not with its dramatic side that we are concerned here. Rather have we to seek some explanation of its complexity, some reason for the unique part which the Mediterranean region has played in the history of the world. Here we come to the contacts with geography, and these are broadly twofold. We must needs ask—first, how was it that the lands round the Mediterranean Sea came to be a training-ground for civilized man in a fashion not paralleled elsewhere? This involves a preliminary study of the geography of the whole region, with a view to showing how it was that so limited an area of the earth's surface could be the scene of such a complex series of events. Second, since we see that there was successive concentration of effort in particular parts of the area, we have to find some explanation of the suitability of these areas—for a time—for the growth of civilized communities, and for their expansion outward from them, no less than the reasons for their subsequent collapse and decay. This means that we must study each grouping in relation to the geography of the region in which it arose.

Thus the contents of this book fall naturally into two parts. We must first consider briefly the geography of Mediterranean Lands as a whole, to find why they were suitable to be the cradle of our civilization. This must then be followed by a survey of the main historical events from the standpoint of the geographer.

PART I

THE GEOGRAPHY OF MEDITERRANEAN LANDS

CHAPTER I

THE MAIN RELIEF FEATURES OF THE MEDITERRANEAN AREA

Relations between History and Geography: the Problems to be solved. Origin and Characters of Mediterranean Area as a whole. The Western Basin. Contrasts with the Eastern Basin.

HUMAN geography may be defined as the study of the effect of place-conditions on the characters and distribution of human communities; or, in other words, of the action and reaction between man and nature.

We tend always to think of climate as one of the most important of the place-conditions, and the difference between the climate—and thus the products—of Mediterranean Lands and that of the rest of Europe is indeed striking enough. But climate is determined by a whole series of causes of which latitude, that is the relation to the sun's rays, is only one, and, locally, not always the most powerful. The surface relief, the distribution of land and water, the relation to prevailing winds may result in two areas in the same latitude having entirely different climates.

Thus we cannot give an intelligible account of the climate of an area without some previous knowledge of its land-forms.

More than this, if civilization, as we have suggested, involves first of all fixation to a particular part of the earth's surface, it involves also freedom of movement. To become civilized man must relate himself to a particular set of place-conditions in such a fashion as to ensure progressive well-being. But his needs in consequence increase, and to satisfy them he must be able to tap other areas in addition to his own. We have hinted that Mediterranean civilization meant steadily increasing control of lines of communication. The use of rivers and of caravan routes over the desert ; the command of the sea ; the making of roads over hills and marshy or forested plains or through river gorges : these mark successive stages in Mediterranean man's great achievement, and the possibility of all and each depended upon the nature of the surface.

Again, and most obvious of all, it is the relief-conditions which made fixation in a particular area possible. There had to be local protection, whether given by a mountain girdle, an encircling desert or the sea, or some combination of these ; there had to be the possibility of satisfying the prime needs of human life within the protected area.

It is clear then that we must consider the main physical features of Mediterranean Lands before we can study their human geography with any profit, and it will help us to limit the scope of our survey if we note first some of the problems which arise naturally from the outline sketch of historical events already given.

We saw that the Turkish advance blocked all the ways to the east from the Mediterranean Sea, and thus converted it, temporarily at least, into a blind alley—a road leading nowhere. But if we glance at the map it seems at first sight as if this was what nature had always intended it to be, for it has no natural water-exit to the east. Thus

questions such as the following at once present themselves. By what ways did man reach the east before the Turk came? Why was access to the lands beyond so important? To answer such questions we must clearly consider the position and world relations both of the Mediterranean Sea itself and of the lands around its shores.

Again, briefly as the story was told, it shows us that there was a steady westward and north-westward shift of what we may call the centres of action. Babylon, Athens, Rome, to name but three towns which became successively important, illustrate this point. For the atlas gives the approximate latitude and longitude of each as follows:

Babylon	-	-	lat. $32\frac{1}{2}^{\circ}$	N., long. $44\frac{1}{2}^{\circ}$	E.
Athens	-	-	lat. 38°	N., long. $23\frac{1}{2}^{\circ}$	E.
Rome	-	-	lat. 42°	N., long. $12\frac{1}{2}^{\circ}$	E.

Since at the present time Babylon is but a heap of ruins, and neither Rome nor—much less—Athens ranks as among the greatest of European towns, we may add that Paris is in about lat. 49° N. and $2\frac{1}{2}^{\circ}$ E. long., and London in lat. $51\frac{1}{2}^{\circ}$ N. and 0° long. The shift, in other words, has been from a sub-tropical latitude to a cool temperate one, from the Asiatic margin to the ocean border of Europe, and it has taken place in a series of stages. Does geography, we must ask, throw any light on the process?

In some ways most puzzling of all is the manner in which successive communities have spread outwards from a centre and then collapsed, their place being taken by others starting from a different base. We saw that after the fall of the Roman empire in the west cities like Amalfi—comparatively near Rome—and others like Venice and Genoa—also in the Italian peninsula—became important. Thus it was not only that there was a shift of the centres of action from extra-Mediterranean Lands to the shores of that Sea and then beyond them to the north-west; there were oscillating movements within the area itself. Take even the comparatively small island of Sicily as an example.

When the Greeks first colonized Sicily they founded, at nearly the same time, two cities. Naxos, founded in B.C. 735, was destroyed less than 350 years afterwards, and to-day lemon groves cover its site. Syracuse, founded in B.C. 734, has been continuously inhabited till the present day, though it once possessed an importance which it has long since lost. Palermo, for centuries an insignificant centre, from Arab times onwards took the place which Syracuse was losing.

If there is any definite relation between the relief of the earth's surface and the life of man, this complex history would lead us to expect a corresponding complexity of structure—and this we find in abundant measure. It is only indeed in quite recent years that the geologists have been able to unravel the tangled skein of earth-history here, and explain to us the essential facts in regard to the growth of the Europe which we know.

Perhaps the most convenient starting-point is to recall the familiar fact that in Mediterranean Lands to-day we have active volcanoes and frequent earthquake shocks. For these tell us that the whole area is still in the making. In Scotland, in the Eifel region of Germany, in the Auvergne area of France, there are abundant traces of past volcanic eruptions; but the subterranean fires have long since sunk into quiescence. All these countries also are free from the destructive earthquake shocks which every now and again devastate certain parts of the Mediterranean.

To the geologist active volcanoes and liability to earth tremors are but signs and symbols of earth movements, less important in themselves than in the evidence which they afford that the surface has recently undergone, and is probably still undergoing great changes.

In a very broad and general fashion we can, from the point of view of structure and relief, recognize three great areas in Europe. Much of Russia—Unyielding Russia, as it has been called—is a great platform, floored by very ancient rocks, which has been stable, geologically speaking,

from the earliest times we can picture to the present day. The uniformity of its existing relief is associated with this history of geological passivity.

North-western Europe has been in the distant geological past an area of great changes, both in land forms and in the distribution of land and water. Its surface once bore lofty mountain ranges, comparable to the Alps of to-day ; but these have been worn down to stumps consisting for the most part of the hardest and most resistant rocks. But the Mediterranean area, as already said, is one in which such great changes have been geologically recent. Within it are high mountain chains, consisting in part of soft, easily-weathered rocks, and these chains confront deep sea basins, or plains which were covered with sea-water in what was geologically yesterday.

If we extend our survey to the margins of Europe we find that Asia Minor is Mediterranean in that it shows signs of very recent changes. Arabia, on the other hand, is a wide platform, which like Russia has been more or less stable ; but Syria, on its north-western edge, has been affected by great earth movements. Africa, again, in the Atlas Lands, has shared in the mountain-making processes, but beyond is again an unyielding platform.

If we attempt, before going further, to relate these broad facts to the history of man, we find that Africa, save for the Nile valley and delta, and—to a less marked extent—the lands traversed by the Atlas Mountains, together with Arabia, has stood apart throughout from the main current of civilized life. A scientific writer, who travelled southwards over Africa from the Mediterranean area in an aeroplane, described it in a vivid phrase as a dead land, smelling of corruption everywhere. There is something of the literary touch here, a combination of direct observation of limited areas with a previous knowledge of the structure of the continent ; but the fact remains that such passive, stable areas have proved resistant to civilization. Despite Phoenicians, Carthaginians, Greeks, Romans, Arabs and

the moderns, much of Africa remains aloof and savage, outside the main trend of human development. Recent events have shown us also how shallow was the imprint of western civilization on Russia, how easy it has been for it to relapse into something approaching barbarism, with its attendant horrors of famine and pestilence.

As contrasted with these geologically passive areas, north-western Europe has become politically stable and civilized, but its civilization is largely Mediterranean in origin, due to Roman influence.

That there is really some causal connection between geological history, expressed in land-forms, and the history of man, that it is not merely a matter of coincidence, is suggested by a comparison of the relative spheres of action of Greeks and Romans. The Greeks, hemmed in to the north by the uniform Russian platform, and to the south by the African one, scarcely succeeded in extending their type of civilization beyond the limits of the olive, a delicate plant requiring a peculiar climate, of limited distribution. When Alexander of Macedon founded a mighty Hellenic empire his line of conquest took him eastward through Persia to the borders of India, and southward to Egypt and beyond. Though there were many earlier Greek colonies on the north shore of the Black Sea, he made no attempt to penetrate into the interior of Russia, a country which was also beyond the limits of the Roman empire at the time of its greatest extension. That empire followed Alexander's line down the coast of Syria into Egypt, but to the west it spread northwards to the utmost limit of the area within which the vine could be made to grow, and it is a plant of remarkable tolerance of different types of climate. Clearly then there were reasons which made an advance into continental Europe easier to the west than to the east.

Some of these reasons are fairly obvious. Rome advanced to the north-west in stages, and at each stage found it comparatively easy to establish a line behind which the gains could be consolidated until the time came for

the next conquest. Her profound reluctance to cross the Rhine-Danube line, of which we shall have to say something later, was due not only to the impenetrable forests behind the Rhine, with their war-like inhabitants, but also to the fact that beyond the lower Rhine and the Middle Danube, as well as to the north of the Black Sea shore, there were apparently endless plains, which presented an insoluble military problem. The Greeks, again, save in the region of the Crimea and that round the Sea of Azov generally, which became the kingdom of the Bosphorus, found no considerable area within continental Europe suitable for their maritime mode of life, and left to other semi-civilized peoples the task of collecting the Russian products which Greek ships carried to the Mediterranean.

Thus we come back to our original statement that uniformity of relief, which depends largely upon geological history, is unfavourable to human settlement, especially in early days, and that complexity of relief is, on the other hand, a favouring factor. The complexity is greater in Mediterranean Lands, because of recent geological changes, than in north-western Europe, but even the latter area shows considerable variety of surface and relief.

The next point is to replace our generalized statement that the Mediterranean Lands show signs of recent geological change by something more concrete, which will enable us at once to visualize these lands and to explain their outstanding peculiarities.

Three main processes have combined to give them their present form : (1) the wrinkling of the earth's crust under pressure to form mountain chains, (2) the snapping of great masses of rocks under the intense strain, (3) the sinking of land areas under sea-level, so that they are either flooded with sea-water and form sea-basins, or, like the Dead Sea, collect water from the surrounding lands without being in direct communication with the oceans of the globe. To these three processes the geologists apply the convenient terms of (1) folding, (2) fracturing, (3) sub-

sidence. As a general rule folding affects the younger and softer rocks, which buckle easily under pressure, while the older and harder rocks tend rather to snap under the strain. When this occurs the broken parts often show differential movement; that is to say one part may subside, while another may be pushed up, so that its broken edge looks like a mountain range. Of this latter condition the Cevennes, overlooking the Lower Rhone valley in southern France, form a good example. The Cevennes are not folded mountains like the Alps and Pyrenees, but only the borders of the central plateau of France. Plateaus, which have much land at summit level, affect climate very differently from mountain chains, and their influence on human life is also different.

We may think of the Mediterranean Sea of to-day—though its past history has been very complex—as due to subsidence, to the sinking of great earth-blocks. It consists of two basins, a north-western and a south-eastern one. It is usual to speak of them merely as eastern and western, and this is convenient enough if we bear in mind their actual relative position. Thus we should note that Crete, which is in Europe, lies wholly south of Carthage (Tunis) which is in Africa, and that Gibraltar, at the narrowed western end of the Mediterranean, is in the same latitude as Antioch, which is near its north-eastern extremity. A useful point to remember is that the parallel of 40° , which bisects Sardinia, has approximately the same relation to the western basin as the parallel of 35° , which bisects Cyprus, has to the eastern one. The fact, also, that a distance of nearly two thousand miles separates Gibraltar from Port Said gives us a rough idea of the total length of the seaway.

This great water-way separates Europe from Africa, and by means of its continuations helps to form the frontier between Europe and Asia. At its western end it communicates with the Atlantic only by the narrow, shallow, channel of the Strait of Gibraltar. Cut off by this strait

from the great ocean currents, receiving few great rivers and little rain, it is at once warm and salt—salt because so little fresh-water reaches it while evaporation is great, warm because the cold, deep waters of the ocean cannot enter over the shallow sill. If not altogether tideless, as it is poetically described, there is at least no room for any great tidal range to develop.

Submarine banks run out from the western end of Sicily towards Cape Bon in Africa, and form the division between the two basins. The island lies across the intervening channel and approaches close to the toe of Italy, from which it is separated only by the Strait of Messina, one of the fracture lines. Through that strait currents run fiercely, giving rise to whirlpools and races, personified by the ancients as the sea-monsters of Scylla and Charybdis. If of no significance to modern steamers, these currents were greatly dreaded by navigators in the days of small boats, and are still dangerous to coasting vessels. The importance of the position of ancient Carthage is thus obvious, for it commanded the main sea-way between the two basins. Its position, that is to say, meant that the owners could control Mediterranean traffic, as the position of Malta in the same passage means that Britain can control it to-day.

The form of the western basin is simpler than that of the eastern, a fact not without significance in connection with the history of Rome. It is in the first place all but encircled by young folded-mountains. The Sierra Nevada of Spain were once continuous with the Atlas Mountains of North Africa, and these with the mountains of Sicily. Sicily, as we have suggested, is a broken-off piece of Italy, and its mountains were once joined to the Apennines. The Apennines pass with scarcely a break into the Maritime Alps. Beyond there comes an interruption, divided by the last slopes of the French plateau into two gaps, which have been of great historical significance. These gaps, which offer natural roads into France, are the Lower Rhone valley,

and the Gate of Carcassonne, that is the space between the French plateau and the Pyrenees.

Apart from Sicily, and the smaller Balearic Islands, two other islands are important. These are Corsica and Sardinia, separated by a very narrow strait, and offering not a little resemblance to one another. With peninsular Italy, the island of Sicily and the north-eastern angle of Tunisia, they bound the Tyrrhenian Sea, the region towards which Rome and Carthage alike faced. There is evidence to show that this "sea" has been formed by subsidence, that is, that an old land-mass lies beneath its waters. For us the fact has significance in two ways. Corsica and Sardinia are fragments of that sunken land; both contain old and hard rocks like granites. Sardinia has extensive uplands floored by such rocks, and these uplands are better fitted for pasture than for cultivation; what wealth the island has consists largely of its flocks. Both islands keep much of their original woodland, both, especially Sardinia, are of compact form and tend to have straight, unindented shores on their eastern sides; both, as compared, for instance with Sicily, have stood somewhat aloof from the main current of Mediterranean life. Wherever, as here, and as in central Spain, in the heart of the Balkan peninsula, and in eastern Asia Minor, we have such areas of old rocks, left standing when adjacent blocks sank, we tend to find this aloofness, this uniformity, instead of complexity.

In this Tyrrhenian area remnants of the old land form also the island of Elba and the adjacent islets, and re-appear on the Italian mainland in Tuscany (Etruria). Elba is still famous for its iron ore, and it seems to have been the fact that minerals, including zinc, silver, lead, iron and others, are abundant in Sardinia that brought the Carthaginians there. In typical Mediterranean Lands minerals are rare, but they quite commonly occur in the regions of old rocks. Even at this stage the point is important, for the separation between areas where settlement was easy and those in which useful minerals occurred, and the presence

of a connecting sea, gave a motive for sea traffic which exercised its influence from very early days.

Before turning next to the eastern basin with its branches and complex relations, let us summarize some of the essential features of the simpler and smaller western one. Except for the Pyrenees the mountain chains tend to run parallel to the coast-line, though the curve of the Alps gives rise to a transverse barrier—not, as Hannibal showed, so important as it seems—between south-eastern France and Italy. A road can generally be forced along the shore, between the mountains and the sea, right round the basin, save where the water-gaps occur between Spain and North Africa, and between Tunisia and Sicily, with the minor interruption of the Strait of Messina. We have already seen that Phoenicians and Greeks alike carried on communication chiefly by water. That Rome solved the problem of land communication is at least partly explained by the fact that nature gave opportunities in the west which were largely lacking in the east.

Nor are natural routes confined to coastal areas, for the Rhone valley and the Carcassonne gap are invitations to penetrate towards the north-western sea-board. Similarly, Roman control of the Mediterranean coast could be evaded by movements round the ocean margin, which brought invaders through Spain to North Africa, whence Rome could be menaced from the south.

Thus, just because movement in the west is possible both by sea and by land, the elements of the western basin are more closely linked than those of the eastern. Rome had to expand at the expense of Carthage or she could not survive. Later, the advance of the Vandals through France and Spain to the region round Carthage was one of the warnings of her approaching end.

In regard to the eastern basin, the first thing that strikes us are the indications of a former great extension of water areas. To the north-west stretches the great arm of the Adriatic, with the Italian plains beyond. The rivers of

those plains are building deltas out seawards, deltas formed of the waste of the Alps. Clearly we can think back to a time when the Adriatic was more extensive, and ran inwards between Alps and Apennines.

Beyond the island-sprinkled *Ægean* the straits, which are but sunken river-valleys, and the Sea of Marmora lead to the Black Sea. An isthmus of no great width, crossed by the Caucasus, separates the Black Sea from the Caspian, with the Aral Sea beyond. The relief suggests that both these latter once had a greater extension than at present. Neither communicates with the Mediterranean, nor is there now any connection with each other. But according to the ancients the Oxus, which now drains to the Aral Sea, once sent an arm to the Caspian. Thus there was an old route, largely a water-way, which led from the Mediterranean to the Black Sea, crossed from its eastern side to the Caspian, and beyond ascended the Oxus. It was thus possible to reach the heart of Asia and to tap the products, especially the silks, of distant China. This is one of several signs that the pull of the natural routes in the eastern basin was eastwards, the reverse of the conditions in the western one.

The Mediterranean ends blindly in the Levant, but here again possibilities of eastern advance present themselves. Across the fertile strip of Syria ways can be pushed to the Euphrates, and Euphrates and Tigris alike lead down to the Persian Gulf, whence there is open water to the Indian Ocean and its bounding lands, rich, like those of China, in products unobtainable in the Mediterranean area.

To-day the isthmus of Suez is cut through by the Suez Canal, leading direct to the Red Sea, and thus giving a through water-way to the Indian Ocean. But to early navigators the northern part of the Red Sea presented great difficulties, owing to the contrary winds and the dangerous shores. Traffic tended to ascend the Nile until that river bends towards the Red Sea, when a short desert journey only intervened before the sea was reached.

So far as structure is concerned the eastern basin resembles the western in that the same three processes have taken part in its formation. But as regards the distribution of folded mountains there is a very important distinction. These are absent on the southern and eastern shores, though they are present on the northern. Partly because of the latitude of the southern shore, and partly because no mountains are present to condense rainfall, it is, broadly speaking, a desert area, except where the Nile distributaries water the land. It should be noted that between Cyrenaica (Barka) and the spot where Carthage stood there is a wide indentation, so that Tunisia has an eastern coast-line as well as a northern one. Since the Atlas chains run more or less parallel to the main trend of the African coast, this means that the interior of the Atlas Lands could be more easily penetrated from the sea-coast south of Carthage than from the western basin of the Mediterranean. This was another of the advantages of position which Carthage possessed.

Syria is rather more favoured than the African coast. Though folded mountains do not occur, earth movements have led to the pushing up of blocks of land, with an intervening valley. These elevated masses serve to condense the water-vapour brought by the winds, which strike the coast directly, and thus the coast at least has a fair rainfall.

From the head of the Adriatic, through peninsular Greece, across the Ægean and into Asia Minor mountain chains sweep in long curves, the chains being generally more or less parallel to the coast-line. But the recent foundering of an old plateau below sea-level has given rise to the Ægean Sea, and the subsidence here has also cut across mountain chains. The broken ends of these chains project seawards in long promontories, between which lie sheltered basins and plains. Here above all could man learn his early lessons in relative security, here were the homelands of the Greek city-states. In relief, in climate, in their relation to the life of man, the eastern and western shores

of the Ægean form the quintessence of Mediterranean Lands.

Westwards the Ionian Sea is as it were a crude and imperfect copy of the Ægean. To its western shores the Greeks naturally travelled, founding in eastern and southern Sicily and in southern Italy new city-states, some of which became great. But they could not make the eastern basin as a whole Greek, for the conditions to which their mode of life was adapted had but a limited distribution there.

Such, in broadest outline, are the main relief features of the Mediterranean area which have most obviously influenced its history. They show that the region has a combination of advantages and disadvantages which goes far to account for that rhythmic rise and fall of the successive communities which has been so characteristic. The north-westward shift of the centres of action, also, is at least partially explained by the geography. For while to the east communities were necessarily localized, with little opportunity for extending their territories and their influence overland, to the west access to the interior of the continent was possible, and when reached it showed at least some resemblance in relief and—as we shall see—in climate to the Mediterranean Lands.

NOTES FOR FURTHER STUDY

The first requirement of the student is a good atlas. A useful one is Bartholomew's *Advanced Atlas of Physical and Political Geography* (Oxford University Press), which has the great advantage of being light and easily handled. For reference the *Atlas Général* of Vidal Lablache (Paris: Armand Colin) is invaluable. It combines history and geography, and the plates are all annotated.

The originator of modern conceptions of the history of the earth's surface was the late Prof. Ed. Suess of Vienna. His great book is available in an English translation as *The Face of the Earth* (Oxford: Clarendon Press), but except for the professional geologist it is difficult reading. Suess's ideas are, however, formulated in most modern text-books of physical geography, to a greater or less extent. The following may be mentioned: J. W. Gregory, *Geography, Structural, Physical and Comparative* (London: Blackie, 1908),

and *The Making of the Earth* (Home University Library Series) ; G. A. J. Cole, *The Growth of Europe* (Home University Library) ; James Geikie, *Mountains, their Origin, Growth and Decay* (Edinburgh : Oliver and Boyd, 1913). A book of which an English translation is long overdue is Em. De Martonne's *Traité de Géographie Physique* (Paris : Armand Colin) ; an abridged edition for schools is now available as *Abrégé de Géographie Physique*.

For the Mediterranean region generally the best book is Philippson's *Das Mittelmeergebiet* (Leipzig : Teubner), no translation available.

CHAPTER II

CLIMATE AND VEGETATION

Characters of Mediterranean Climate. Comparison with those of Oceanic and Eastern Europe, and of North-east Africa. The natural plant-cover and its significance. Vegetation-types in the Mediterranean—High Forest, Maquis and Garigue. The Mountain Forests and treeless plains. The Marginal and Transitional Areas.

WE have looked at the general characters of land and sea in the Mediterranean belt and the adjacent areas. To complete the picture of the natural conditions to which man has been exposed here, we have to consider next the peculiarities of the local climate. Since the influence of the climatic factors finds its most obvious expression in the natural plant-cover this involves some study of Mediterranean vegetation.

The main features of the Mediterranean type of climate, as strictly defined, and the causes to which it is due, are so fully explained in the ordinary text-books that a very brief statement is all that is necessary here. There are three essential points: (1) Rain falls freely in the winter half year, (2) summer is a period of drought which may be partial, or complete to the extent that one or two months may be wholly rainless, (3) the annual range of temperature is small, so that typically the winters are mild for the latitude and the summers not hot.

Since these peculiarities are due to the fact that, owing to the swing of the wind-belts of the globe with the sun, the

region comes into the zone of the west winds in winter and into that of the dry trades in summer, the climatic type is not limited to this part of the world. It is to be expected everywhere on the western sides of continents in a coastal strip in the neighbourhood of lat. 35° – 40° . The places crossed by these parallels, north and south of the equator, should be noted on a globe, and the areas of Mediterranean climate found.

But though it is true that the climatic type is found elsewhere, two facts at once strike us. Except round the Mediterranean Sea the areas concerned are small. With the same exception they have not proved particularly favourable to the early development of civilization.

We can scarcely doubt that these two facts are related, and that it is because the climatic type reigns over so wide and so varied an area that the Mediterranean Lands in the limited sense have proved of such importance in the history of civilization. This brings us back once more to the subjects discussed in the last chapter ; for it is the way in which the Mediterranean Sea penetrates far into the interior of the Old World land-mass that enables the rain-bearing winds of winter to carry their beneficent moisture over such a wide area. It is clear then, that in, for example, Chile and California, which have no inland seas, the total area with winter rain and summer drought must be very limited.

Nor is it difficult to see why it was an advantage to man round the Mediterranean Sea to have a wide area with merely local modifications of the same climatic type. If in Chile, or in California, or in the south-western extremity of Africa, man had evolved—which he nowhere did—a mode of life delicately adjusted to the local conditions of climate, then his numbers would have rapidly increased with the increased food-supply. Emigration would have had to occur. But such emigration, once the limited local area had been colonized, would have had to be into an area of different climate, into one in which the slowly-acquired

experience and traditions of the group and its characteristic food-plants would have been more or less useless. But when the Greeks found Greece too small for them, a short sea-journey brought them to another and Greater Greece, where climate, relief and soil were much the same as those they had left at home. So gentle also in the west is the transition between the Mediterranean climate proper and that of the oceanic margin of Europe, that, with relatively little modification, the Romans were able to spread their characteristic mode of life far to the north.

The significance of that spread is best realized by considering the climates of Europe in terms of the natural vegetation.

In winter the Mediterranean area is a green land, and could we take a bird's-eye view of western Europe from an aeroplane, then we should find the green belt spreading north-westwards. Ireland and much of England would show green grass, not often concealed by snow. In the south-west corner of Ireland we should see the same natural thickets of evergreen arbutus or strawberry tree which occur round the Mediterranean, and in south-west England the health-resorts would display planted shrubberies of arbutus, noble laurel, myrtle, Mediterranean heath, rosemary and many another evergreen native to the French and Italian Rivas. Nor would the late autumn and early spring flowers which carpet the ground among the evergreen thickets of the Mediterranean be unrepresented.

But if we turn eastwards into Central Europe and Russia we find that in winter green grass disappears beneath a more or less constant snow-blanket. From it the dark conifers protrude on the Uplands, or, in places, the brown and naked boughs of broad-leaved trees like beech and oak. But in the greater plains, whether of Hungary or of South Russia, trees of any kind are absent over long stretches, and there is nothing to break the monotony of the snow-cover. Everywhere the dry cold makes winter a period of enforced rest for plant life and of inactivity for the farmer.

But alike in the Mediterranean region and on the oceanic margin some growth at least both of the corn, autumn-sown in the fields, and of the lowly herbs of the woods is possible.

This means that in winter the Mediterranean climate may be said to spread north-westwards, far beyond the latitude limits which we have given. In the same season, on the other hand, "temperate" eastern Europe approaches the condition of a cold desert, shares in the "intemperate" climate of Central Asia.

The northward swing of the sun's path brings marked changes everywhere. No longer drenched with sudden heavy showers, alternating with bright sunshine; exposed to severe evaporation: the earth in the Mediterranean Lands becomes dry and baked. The grain crops are harvested early, and in high summer we see the brown parched earth between the evergreens, whose leaves now appear dry and dusty. The olives with their small silvery leaves and yet unripened fruits, even the vines with their swelling bunches of grapes, do little to modify the impression of drought and all-pervading dust and glare. Poppies, anemones, cyclamens, irises, gladioli, and the other bright flowers which gave a note of colour in the wet season, have disappeared. A survey from the air would suggest everywhere that the desert of the far south was advancing upon the sown lands.

But north-westwards the rains continue, and the green becomes deeper as spring gives place to full summer. The grass is lush and thick in the meadows, the deciduous trees have put on their summer mantle of green. Yet, from the utilitarian standpoint, the land may be said to be paying in summer for its winter gains. If the cattle find food in abundance, the more or less constant showers in the areas exposed to the ocean winds may cause the corn crops to rot before they ripen.

Eastwards, on the other hand, nature seems to give summer plenty to atone for the winter scarcity and barren-

ness. The rains come especially in spring and early summer, as the temperature rises. If the crops must be sown late, they have the double advantage of warmth and moisture to force their growth. Since the amount of rain diminishes as summer goes on, sunshine is available for ripening and harvesting, so that in late summer the land is neither brown nor green, but golden.

This survey is necessarily very summary, but it may serve to bring out the essential fact that in Europe there are three main types of climate, with minor variants and transitional types. Round the Mediterranean we have winter rain and summer drought ; on the oceanic margin rain occurs at all seasons, but, as in the Mediterranean area, there is a small annual range of temperature. In the east, and also in the centre in areas, like the plains of Hungary, sheltered from the influence of ocean winds, most of the rain comes in early summer, and there is a great difference between summer and winter temperatures.

In a broad and general fashion we may say that, expressed in terms of natural vegetation, this means that the Mediterranean area is a land of evergreen trees and bushes, with little summer grass ; that the oceanic margin is a land of trees, both evergreen and deciduous, with summer and, in parts, winter grass ; that the south-east of Europe is a land of early summer grass with few trees, and a marked winter check to growth. In terms of human life, again, we may say that the first area is one of short-lived winter crops and summer fruits ; the second, with local exceptions, is better fitted for fodder crops for cattle than for the grain which man needs ; the third is suitable for large-scale cereal production, provided there is a political organization strong enough to give the necessary protection and social stability.

To complete the picture we have to add that between the oceanic margin, with its mild winters and its heavy rainfall, fairly regularly distributed throughout the year, and the south-east with its scanty precipitation, coming mostly in

early summer, its cold, dry winters and its hot, sunny summers, there stretches a wide transitional belt. In this, apart from local modifications, the total rainfall steadily diminishes as we pass eastwards, and the divergence between summer and winter temperatures increases in the same direction.

This area was once forest-clad, with deciduous trees on the lowlands and hardy conifers on the heights and in the colder regions; but in the course of many centuries of cultivation the forests have been largely cleared by man. While they remained they lodged warlike peoples who were a constant menace to the civilized communities of the Mediterranean Lands.

Finally, since North Africa and South-west Asia help to form the margin of the Mediterranean Sea, we have to add that, as latitude decreases, we pass into the area which is exposed to the trade-winds at all seasons, because it is beyond the reach of the westerlies of winter. Such dry areas form the desert, which set a natural limit to Mediterranean man's extension to the south and east. In this connection it is very important to bear in mind what was said on p. 26 as to the relative position in latitude of the eastern and western basins of the Mediterranean Sea. Because the eastern basin is in a lower latitude, the influence of the westerlies is less, and the rainfall tends to be scantier throughout. Thus the whole of the southern shore of this basin, from the Nile delta to the Gulf of Gabes, suffers from a deficiency of rain, when annual figures are considered, and suffers even more than the actual figures suggest owing to the prolongation of the rainless season. For example, there is no great difference between the total figures for Athens and for Tripoli, but while at Athens only July and August are technically "rainless" months, the dry season at Tripoli lasts for seven months. The difference, so far as plant life is concerned, is obviously very great.

Along the southern shore of the eastern basin, however, there are considerable local differences in rainfall, due to

variations in latitude and relief. Thus Cyrenaica has more rain than the adjacent parts of the coast, both because of its somewhat higher latitude, and because, not far from the coast, there is a plateau region rising to over 1500 feet above sea-level. Conversely, the severe drought which reigns along the shores of the Gulf of Sidra, where there is less than ten inches of rain per annum, is due both to the relatively low latitude, and to the fact that the land does not exceed 600 feet in height. The region round the town of Tripoli, again, for the same reason as in the case of Cyrenaica, has a total precipitation of sixteen inches ; but the contrast with Algiers, in the western basin, which has thirty inches, remains great.

Wherever, in the eastern basin, such local increases of rainfall occur, there, if in impoverished form, the typical Mediterranean shrubs tend to appear, forming islands in the midst of the surrounding steppe desert. Further, even when the rainfall sinks below ten inches, it is sufficient to allow of a somewhat freer growth of plants than in the desert proper, which lies further inland. The characteristic plant of this steppe desert in North Africa is alfa or esparto grass, which can be eaten by grazing animals, that is, it forms pasturage. The alfa steppes extend right along the north coast of Africa, approaching close to the sea where the rainfall is low, but pushed, as it were, south where, as at Cyrenaica and at Tripoli, the more abundant rain permits of a local growth of shrubs and bushes. In the Atlas Lands a broad belt of this kind of grassland occurs in the rain-shadow between the two chains of the Atlas. Curiously enough, also, alfa steppes occur, if over comparatively small areas, in Spain, where they form one of several indications of the close relation, in structure, relief, climate and vegetation, between that country and North Africa.

The immediate point which it is wished to make, however, is that while in the western basin of the Mediterranean the Atlas Lands, in climate and in vegetation, as in structure

and relief, are truly Mediterranean, in the eastern basin the African shore is unsuited, save in isolated patches, for the peculiarly Mediterranean mode of life. Along that shore, from the Nile delta to the Atlas Lands, and on into Spain there is a belt, here very narrow and there wider, of drought-resistant pasture, along which nomads and their flocks can advance without difficulty.

It was along this belt that the Arabs travelled into Spain, and in its African portion they remain till to-day, even if Italian, French and, to a minor extent, Spanish rule has been superimposed upon them. There is a sense in which this fact is due to historical causes. For, to take only the case of the Spaniards as an illustration, we should have expected that the final ejection of the Arabs from the Iberian peninsula would have been followed by an advance by the Spaniards into the Atlas Lands, and that they would have occupied these at least throughout their extension. In point of fact, however, the ejection of the Arabs was not completed until the discovery of the New World had given Spain a new orientation, and its inhabitants were too absorbed with the thought of the wealth of the new lands overseas to follow the line which nature had marked out at home.

In another and deeper sense, however, this failure of Mediterranean man to establish himself permanently, despite various efforts, along the coast of North Africa, was due to geographical causes. It was not a fact which stood alone. The Greeks, even at the height of their glory, failed to make the whole of Greece essentially Greek, and there are many other examples of the same thing. In point of fact, the Mediterranean mode of life was based upon a singularly careful utilization of the natural climatic conditions, as expressed in terms of the natural vegetation. Only where the typical climate, and thus the typical forms of plants, were present, could Mediterranean man establish and maintain himself. Wherever, as in Atlas Lands and, much more, in regions like Cyrenaica, particular areas were

geographically marginal or transitional, the difficulties became too great for permanence.

It is important to bear such facts in mind in our historical survey, otherwise the root-causes of the various conflicts between peoples become obscure. We are too apt to think that the struggle between Greeks and Carthaginians was due to the former having a higher standard of conduct, a purer religion than the latter. Similarly, one can easily overestimate the religious factor in the conflict between the later Romans and the Arabs and the national one in the long struggle between the Turks and the Balkan peoples.

Throughout the period which we have to consider in this book, man's control of natural conditions was strictly limited. He was engaged in learning the great lesson, finding out how to adapt himself to a particular environment, and then determining by experiment the limits within which he could spread his special culture.

The Mediterranean region was one peculiarly fitted for rapid social evolution because, on the one hand, it included areas of highly specialized climate which could be made to yield the essentials of civilized life to small groups. On the other hand, as the population of such favoured areas increased, it became necessary to make demands on other areas for additional supplies. The resulting contacts prevented stagnation, were a direct stimulus to further advance; but they had another side. Just because those other areas were geographically different, they were occupied by peoples of other traditions, with contrasting modes of life, and conflicts necessarily occurred, each party striving to spread its own culture to the utmost possible limits. The spread of Mediterranean culture from Greek Lands to the wider Roman ones was due to the fact that it was based upon a more perfect utilization of the natural resources than any competing one. But its perfection can only be realized if we consider it in relation to the environment.

Let us then attempt to show in some detail how climate,

relief and the nature of the underlying rocks all influence the characters and distribution of plant life round the Mediterranean Sea, as a preparation to showing how all three have influenced man's life there.

The most obvious point is that which has been already mentioned—that the characteristic vegetation consists of shrubs and trees which are chiefly, but not exclusively, evergreen. The leaves are sometimes leathery and coated with wax, sometimes small and hairy ; in other cases they are even absent, their place being taken by the green stems. Resins and scented substances are common, and the pungent odour which many of the plants give out when crushed or bruised is very characteristic.

All these are of course adaptations to the peculiar climate. On the low grounds, at least, the winters are rarely cold enough to stop plant growth completely ; but the drought of summer brings a check. The presence of the leaves in winter enables the plants to build up food material to some extent at least during that season ; but since the same leaves are subjected to the burning sun of summer they must be protected against excessive loss of water then. In containing aromatic substances, and in the frequent presence of thorns or prickles, many of the trees and shrubs recall those of the desert areas to the south, but their drought-resisting characters are less marked.

None the less drought is the great enemy of woody plants in the area, and the variations in the available water-supply from place to place, combined with man's influence, both limit the distribution of the typical woods and thickets, and enable us to recognize three distinct vegetation-types.

In the first place what is called high forest, that is woods with tall trees, has a very limited extension on the low grounds. Many botanists believe that this is largely due to human interference. Man has not here, as in some other parts of the world, cut down trees to any extent to obtain wood for house-building ; for Mediterranean man tends to live in stone houses. But from very early days he has been

a seafarer and therefore a boat-builder. The present bare appearance of the hill-slopes in Dalmatia, for example, is often ascribed to the action of Venice in cutting down trees to make the galleys in which she carried on her trade.

In some ways more important than this direct action is the fact that the goat is the characteristic stock-animal, and the goat is a great forest-destroyer, owing especially to the way in which it nibbles seedlings and young trees, and thus prevents natural reproduction.

But even when we add that the woods are always being destroyed to obtain fuel, it remains doubtful whether we can wholly ascribe the Mediterranean poverty in high forest to man. There are relatively few social species of trees, and despite their adaptations to minimize the loss of water, it is only in favoured sites that they can hope to maintain themselves in any numbers. Obviously a tall tree is more exposed to drying winds than a bush, and both because of this fact and on account of the number of its leaves it requires much water.

The chief forest trees are different kinds of pines and oaks, mostly but not entirely, evergreen oaks. The pines furnish firewood, and, like their allies elsewhere, much resin. In Greece the resin is added to the wine to make it keep. Of the oaks the cork oak is important because of its connection with the wine industry. All of course yield acorns, which can be used for feeding pigs and, exceptionally, as in Turkey and North Africa, as food for man. Tanning materials are also obtained from the oaks, both from the bark and from the acorn-cups of the *Valonia* oak of the eastern Mediterranean.

Far more characteristic and more widely distributed than true forest are the thickets or scrub-forests, consisting of dense masses of shrubs, with much undergrowth, here and there a taller tree, and climbing plants like *Rough Smilax* and *Leathery-leaved honeysuckle* binding the whole together into an almost impenetrable mass. So common and so characteristic is this type that in Italy, in Spain and

in Greece alike there is a special local term for it. Since we have no good descriptive English word for this kind of wood, it is usual to use the Italian *macchia* in its simple French form of *maquis* to designate it.

Some of the characteristic plants of the maquis have already been mentioned on p. 36; one other may be named on account of its beauty and interest. This is the oleander, a bush with grey leaves and bright rose-pink or white flowers, often grown in conservatories here. It grows especially where the soil is damp, and is thus commonest along the sides of river valleys. In Algeria the French colonists, by a natural confusion of ideas, call it the fever-plant, saying that those who pluck it develop malarial fever.

Their reasoning is easy to follow, even if the premises are not sound. Because of the summer drought streams in the Mediterranean are rarely perennial; many of them dry up either entirely or into a chain of pools in the hotter months. In those stagnant pools mosquitoes breed; once infected with the germ of malaria they transmit this from one individual to another. The oleander blooms all summer long; mosquitoes are most active in the evening; if therefore you wander along the valleys in the cool of the evening gathering bunches of oleander you are not unlikely to be bitten and thus infected, even if the oleander itself be innocent enough of poisonous qualities. Both in its beauty and in its malign associations it is characteristic of the area.

Apart from the generally small patches of high forest, and the wide belts of maquis, we have a third vegetation-type which is closely associated with a thin soil-cover. From a combination of causes the thinning out of the soil, so that the underlying rocks of the earth's skeleton appear at the surface, is far commoner round the Mediterranean than in our own land. Part of the explanation may be found by considering where bare rocks appear in this country. We find them of course in the hills and uplands,

where the slopes are steep and rock waste is carried away nearly as fast as it forms. When we recall what has been said as to the form of the Mediterranean lands, it is clear that steep slopes are likely to be common there.

Again, in certain parts of England we find, somewhat rarely, areas where bare rock appears, even though the slope is not steep. In the Pennines, for example, there are on the sides of some of the hills miniature "deserts" of naked rock, crossed by fissures of varying width and depth. In this case plants only grow in the cracks and fissures, where a little soil accumulates. Such exposed rocks are always limestones, and the explanation of their bare appearance lies in the fact that pure limestone is easily dissolved in rain-water. Thus, while other kinds of rocks break up under the action of weathering agents, leaving behind sand or clay to form the basis of vegetable mould, limestones merely disappear, the inconsiderable residue which cannot be dissolved being carried away by running water. Massive limestones are widely distributed in the Mediterranean area, and form another reason for the frequent scantiness of the soil-cover.

There is still another cause. We have spoken repeatedly of the Mediterranean as a region of drought. But if, with prudent scepticism, we collect from the records the actual rainfall figures, we find that in many parts the annual fall is greater than in parts of England, which we have spoken of as a land of moisture.

More than this, if we compare the winter figures for English and Mediterranean health-resorts the former may seem to have the advantage; a fact with which publicity agents sometimes make great play.

The explanation of the general fact is found when we remember that, so far as plants are concerned, it is not the total figures which matter, but the relation between the rainfall and the evaporation and run-off; the sun is hotter in the south and the moisture dries up faster.

Again, the reason why, in spite of the figures, invalids

have a better chance of fine weather on the Riviera than on the south coast of England is to be sought in the character of the rainfall. In the former area it comes in very heavy showers, generally short, after which the sun reappears; our rain tends to be lighter but more continuous. We know from personal observation that our heavy summer thunderstorms may produce "wash-outs" on roads and other bare surfaces without a plant-cover. In Mediterranean Lands the plant-cover is rarely so complete as with us, and the torrential rains are always tending to carry the surface soil away. Indeed one of the cultivator's great difficulties has always been to prevent his precious soil being carried into the sea, or down to those coastal flats which are so malarious as to be almost useless to him.

The injurious effect on plant-life of the constant tendency for the soil to be carried away is increased by the bright sunshine and summer drought. A thin layer of soil dries out quickly, and not very many kinds of plants can develop the form of root system which enables them to extract the moisture necessary from the cracks and crannies of the rocks beneath. Obviously then our third type of vegetation will not only include a relatively small number of plants, but these will be represented by few and scattered individuals. For, be it remembered, each little tuft of green which we see in a rock crack is compelled to collect moisture over a fairly wide area, and thus starves out not only its competitors but also its own offspring.

This impoverished type is represented, with local variations, in all parts of the Mediterranean area, and as in the case of the maquis the different peoples have special names for it. In southern France, where it is well developed, and always associated with limestone, it is known locally as *garigue*. We may conveniently use this as a general term, without forgetting that in Spain, in Greece and in North Africa there are local differences in type.

The plants which grow in the garigue, broadly speaking, are the smaller and more drought-resistant members of the

maquis type. They consist largely of what the Germans call "half-shrubs," a more vivid term than our equivalent of undershrubs. Low, scrambling, often with grey or yellowish leaves, bright, short-lived flowers and aromatic foliage, most are neither herbs nor shrubs, but something in between. Lavender, thyme, sage, juniper, many different kinds of broom and gorse, rock roses, poisonous spurges, are all characteristic. Mingled with these we have bulbous plants like asphodel, the fleshy roots and tubers of which are tucked deep into the rocks.

One other native plant may be mentioned, because its distribution is so interesting. This is the dwarf palm of the western Mediterranean. Most people if asked to name some characteristic trees of the Mediterranean area would certainly include palms, which are abundant in almost all the show-places. But the only native palm which the area possesses is the low-growing dwarf-palm, a typical garigue plant ; all the others have been introduced by man. The dwarf-palm is now very rare on the European side of the western basin of the Mediterranean ; like the monkeys of Gibraltar it is an indication of a former land-connection with Africa. In the Atlas Lands, on the other hand, it, no less than the monkeys, is very common, so common that the dense hairs which cover the young leaves have economic importance, being used to replace animal hair as a stuffing material.

Two other plants are almost everywhere characteristic of the garigue, but both were introduced late, being of American origin. These are the prickly pear or cactus, and the agave, often called an aloe, both brought by the Spaniards after the discovery of America. The way they have run wild is interesting as emphasizing the desert character of exposed rock surfaces in the Mediterranean ; for both are true desert plants.

Because of that desert character the garigue areas are mostly of little importance to man. But in them the eclectic goats find more food than would be expected, and

the bright flowers of many of the plants are much visited by bees, an important fact, because for long honey was the only sweetening material available.

So far we have emphasized the fact that the Mediterranean high forest, maquis and garigue alike consist predominantly of evergreen woody plants. But even within the region of typical climate two other plant-groupings occur.

In the first place we have mountain forests of broad-leaved trees, such as beech and sweet chestnut, wherever the land is high enough, and sufficiently exposed to the wind, to get relief rains in summer. In other words, such forests occur where local conditions modify the summer drought, and make it possible for water-spending trees to replace water-saving ones. They mean that parts of the Mediterranean Lands are, or have been, timber-producing ; this fact has been historically important.

Conversely, we have low-lying areas where herbs, including grasses, grow freely during the cooler half of the year, but where the conditions are so unfavourable to woody plants that these cannot thrive. Such areas are therefore green and grassy in winter, but barren and dry in summer. The causes are often complex ; but we may give two relatively simple examples.

Round the mouths of the Rhone are wide plains, greatly exposed to winds, salt-bearing winds from the sea, or the bitter mistral from the north. Here trees will scarcely grow. There is abundant pasture in winter, but in summer the sheep have to be transported far up into the Alps to find the grass which their winter home no longer yields. Again, round the town of Rome extends the broad Campagna. It is floored by impermeable volcanic rocks, so that the winter rains cannot sink in. Part of the year it shows pools and marshes, mingled with stretches of pasture. In summer it dries out largely and becomes dusty and barren ; even where the water remains the land is useless, and worse than useless, because of the danger of malaria.

In that human occupation is only possible during a part of the year at best, such plains stand aloof from the main current of Mediterranean life.

As a sort of counterpoise to these low-lying, winter-pastures, we find high up on the mountain sides, above the zone of mountain forest, pastures which can only be used in summer, since in winter they are drowned in snow. To the human significance of this fact we shall return; but even at this stage it is well to keep in mind that between the winter and summer pastures stretches the zone of cultivation across which the migrating flocks have to pass.

To complete our picture we have to add that, as has already been hinted in dealing with land forms, other climatic types, with their associated vegetation, push their way into the Mediterranean belt. In north-western Spain, in North Italy, in the heart of the Balkans, we have summer rain, often copious; therefore the Central European forest belt extends into what at first sight should be Mediterranean Lands. In Central Spain, in Central Asia Minor, in the Atlas Lands, on the other hand, the relief and the existence of a mountain border give, as already suggested, a steppe type of climate with the associated scanty vegetation. Mediterranean man is thus hemmed in on all sides by lands different in character from his own; this again has been of great historical significance.

NOTES

In addition to the books mentioned on p. 32, the climates of Europe should be studied in such books as *Climate and Weather*, by H. N. Dickson (Home University Library), which gives a general world treatment, and W. G. Kendrew, *The Climates of the Continents* (Oxford: Clarendon Press), where the treatment is regional. The latter book is especially useful on account of the large number of climatic statistics given. It is a very useful exercise to pick out rainfall figures for a series of towns and then try to interpret their significance. For instance, a study of the figures for towns like Brest, Munich, Budapest and Odessa, shows better than words the changes in the characters of the rainfall as one passes from west to

east in mid-Europe. With them should be contrasted figures for such Mediterranean towns as Athens, Palermo, Algiers and Tripoli.

The winds of the Mediterranean region have only been mentioned in a very general fashion. They are often of great human importance, and the causes and distribution of the mistral in south France, and of the bora along the eastern coast of the Adriatic should be studied.

There are many books on the vegetation of the Mediterranean. Ed. Strasburger's *Rambles on the Riviera* (English translation) gives a good general account, and H. Stuart Thompson's *Flowering Plants of the Riviera* (London: Longmans, Green) gives detailed descriptions of the commoner plants, with good illustrations.

CHAPTER III

THE HUMAN RESPONSE

The typical crop-plants and the methods of cultivation. Relation of cultivated areas to the natural vegetation-types. Olive and Vine: their significance to Mediterranean man. The hill-town and its origin. The Problem of water-supply.

SO far we have been concerned with the main facts of structure, relief, climate and vegetation in Mediterranean Lands. We have now to ask how man has reacted to these; what use he has made of the opportunities which nature offered; to what extent his ingenuity has enabled him to triumph over the difficulties she has put in his way.

That difficulties exist has been already made clear. Within the area proper the soil has nowhere the depth which it attains in some other parts of the world, as for instance in the Nile valley or over the plains of India. Further, it is almost everywhere exposed to rapid wastage, and the process of local soil-formation is slow, a point which may be elaborated a little.

Geologists recognize two main types of soils, those which have been formed in the regions where they are found, the so-called sedentary soils, and those which have been transported from a distance by water, wind or ice, the drift soils, or soils of transport. Now the latter have necessarily a very limited extension in the Mediterranean basin. As strictly defined it lies outside the glaciated region of the northern hemisphere, so that boulder clay

and glacial deposits generally are absent. The wind-borne loess, which forms the most productive soil of Central Europe, and was apparently formed on the margin of the ice-sheet, is also not represented. With the general absence of large rivers is associated that of large tracts of alluvium, the North Italian plains being outside the area of typical climate.

The major part of the soils is thus of sedentary origin. Such soils owe their origin to the processes of weathering in the large sense. In theory, if not always in practice, we can distinguish between two types of weathering, the chemical and the mechanical. Chemical action depends on the presence of water and a certain amount of warmth. It thus reaches its maximum in the wet tropical belt, but is moderately active in Central Europe generally. In desert regions it is virtually non-existent, owing to the absence of surface water, while in polar regions and on the tops of high mountains it is at a minimum also, on account of the low temperatures. Since in the Mediterranean regions the highest temperatures coincide with the greatest drought, it cannot be particularly active, at least within the region of rainless summer.

Mechanical weathering depends especially on large temperature variations, and is greatly assisted by frost, as one may see on any high mountain top. In parts of the Mediterranean basin frost is practically never felt, and in the general case the difference between day and night temperatures is less marked than in the deserts. Thus mechanical no less than chemical weathering is here a relatively slow process, which means that there is little natural renewal of soil or of soil fertility.

On the other hand, as we have already seen, soil destruction is relatively rapid, because of the steepness of the slopes, the way in which rain comes in sudden destructive bursts, and the incomplete nature of the plant cover. The great labour of Mediterranean cultivation, indeed, is due to the necessity for ceaseless effort to prevent rain-wash.

In places also the fall of blocks of rock from the mountains above is a great danger. It is a saying in Dalmatia that the land "grows" stones faster than they can be removed, and the crumbling away of these stones into soil is a very slow process.

Again, the scarcity of summer pasturage, and the consequent difficulty of keeping large stock animals in any numbers, makes it not easy for the cultivator to restore the matter removed in the crops, and mineral fertilizers were not obtainable in early days. Nor can fallowing, a common method of restoring fertility where manures are difficult to obtain, be practised in a region where lands capable of cultivation are of so limited an extent.

The apparent advantages of the temperate, sunny climate also are largely neutralized by the fact that drought comes with rising temperature, so that the height of summer is a time of slackened, not quickened, growth. Since there are few great rivers, and many of the smaller dry up in summer, irrigation water is difficult to get save in areas of limited extent.

Once again, though the mild sunny climate, without extremes, is perhaps the greatest natural asset, the conditions which make it possible involve certain correlated disadvantages; the Gods seem always to leave a drop of poison at the bottom of the cup! Before the typical climate can develop there must be exposure to rain-bearing sea-winds and shelter from blighting land ones. But that means there must be a mountain-backing close at hand; otherwise, at one season or the other, continental influences spread to the sea. The French and Italian Rivas owe their delightful winter climate to the way in which the Alps and the Apennines rise close behind the coastal strip: the plains at the mouth of the River Vardar, like those at the Rhone mouth, have bitter winter winds. To get the full advantages of the climate, then, man is shut into a narrow, *sloping* belt of shore. Not for him are the wide level stretches favoured by farmers elsewhere; he must

needs often use the hoe or the mattock instead of the plough, for which there is little room.

Dependent therefore though he always has been—and still is—upon the produce of his lands, Mediterranean man is a gardener rather than a farmer ; his methods are intensive not extensive. His love of his plot arises from the fact that he measures it by feet rather than by acres, and that every square foot must produce something. He lives in oases amidst a desert of stones, but he has always had the supreme advantage of company, of a full development of social life, and of some leisure for its enjoyment. His house is often but a place to sleep in ; his days are spent in the open, so that even the poor have a wide place within which to dwell.

His basic crop-plants naturally reflect the climatic conditions as closely as do the wild ones, and just as the maquis is always tending to thin out into garigue, so also are the cultivated lands fringed by waste areas.

But the intensity of production within the cultivated zone permits a considerable number of people to live off the land, and since both the implements required to till it and the resultant crops are of small bulk close settlement is possible. Thus Mediterranean man is typically a town-dweller. Even to-day isolated dwellings and very small villages are rare, and for the ancient Greek to be "cityless," that is not to be a member of a well-defined unit, was almost the greatest calamity that could befall any man.

Let us illustrate these points by a specific example, taking the relatively unfamiliar area of Dalmatia, on the eastern coast of the Adriatic. It is less sophisticated than the nearer French and Italian Rivas, and shows very typical conditions.

The mountains, here the Dinaric Alps, built up of masses of very pure limestone, rise so close to the shore that often there is literally no room for man. But there have been geologically recent changes in sea-level, owing to the way in which an earth-block foundered to form the Adriatic,

and in many places the sea has invaded the land, separating off lower parts as islands or peninsulas, and giving rise to inlets and channels. Some of these are fringed by narrow strips of fertile land, sheltered landwards by the bare mountain slopes, watered by streams gushing out of the limestone rocks. The fertility is due to the presence of fairly deep soil, provided by the long accumulation of the fine silt which even pure limestones leave behind when dissolved in rain-water.

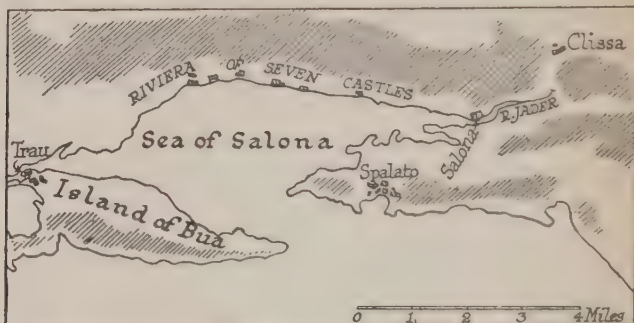


FIG. 1.—THE COUNTRY ROUND SPALATO AND ROMAN SALONA.

The map illustrates the chief conditions determining the sites of Mediterranean towns—protection, fertile land in vicinity, water supply, and, in later times, easy access to the sea.

About halfway down the Dalmatian coast lies the mediaeval and modern town of Spalato (Fig. 1), and beside it is a wide inlet, the mouth of which is partially closed by the island of Bua. The inlet, which thus resembles a lake, used to be called the Sea of Salona, from the Roman town of Salona which lay near its eastern end, and is now represented by a few ruins. The fertile strip round the Sea of Salona is well cultivated, and in addition to Spalato we find a number of large villages spaced along the shore.

But behind ruined Salona lies a natural route to the interior, which crosses the barren mountains through a pass. A ruined fort, the Castle of Clissa, guards the outlet of this pass. As far as Clissa, and a little beyond, the Turk once

reached ; Salona was sacked and destroyed by an earlier set of invaders, the Slavs. Neither Spalato, once merely Diocletian's palace (Spalato = the palace), nor the villages have any natural protection of site. But the stout walls of the palace in which the refugees from the Slavs once found shelter still stand, and to the menace of the Turk's advance the villages responded by building protecting castles. Each of the seven villages has its own castle, and the whole strip is called the Riviera of the Seven Castles. The bare mountain slopes and the signs of the Turk above ; the "good land" and the seven castles below : here is a striking example of one of Mediterranean man's perennial difficulties. It is not enough to adapt himself to the natural conditions ; he must be able to hold his gains against the constant menace of invasion.

Let us look next at the cultivated land. Vines and olives grow here as they do almost everywhere, even if the olives at least do not produce so freely as in more favourable areas. Suppose we visit the region in the spring months and stop to look at the vineyards. To reach Dalmatia we shall probably have crossed some of the vine-growing regions either of France or Germany. The first thing that strikes us is that while French and German vineyards are almost always placed on hillsides, here the vines are growing on the level. The German word for vineyard, indeed, is *Weinberg* = vine hill, so close is the connection between slope and plant. But here not only are the vines planted on level ground but each stock is placed in a little basin-shaped depression. The earth dug out to make the hollows is piled up in hillocks between the plants, and on these we may see beans planted. Instead then of vine-hills we have vine-hollows, with bean-hills between ; instead of one crop we have two.

Now if our study of the contrast between the climate of Central Europe and that of the Mediterranean area has been sufficiently careful, the interpretation of these facts of observation should be easy.

The vine-dresser in France and Germany is sure of plentiful summer-rain. His great fear is that during that season his vines should suffer from stagnating water, for the plant has a well-developed root-system in order that it may gather water in the deeper layers of the soil. Excessive moisture may cause root-rot.

But the Dalmatian peasant has to look forward to a time when the surface soil will dry out, and the more water he can get to drain down to the deeper layers the better will be the early summer growth and the full summer grape-crop. In winter, however, the surface soil is constantly moistened by rain. That surface moisture the vine does not need; it has shed its leaves and its roots are inactive. The bean plants on the hillocks can use the winter rain and the winter sun; that with their shallow roots they could get no water in the summer matters not at all. For before summer comes they have run through their life-cycle, the bean-pods have been harvested, the bean-plants are dead.

Here then we have the essential feature of Mediterranean tillage. The gardener-cultivator can use the constantly renewed moisture of the upper layers of soil in winter for short-lived herbaceous plants requiring little heat: he can also utilize the sub soil water in summer by planting deep-rooting shrubby or arborescent plants which require much heat.

His winter herbaceous crops may produce edible seeds, whether cereals or pulses, or they may be the green vegetables which he needs, or the fodder-plants required for his relatively few stock-animals. His summer crops are fruits rather than seeds, but fruits of a special type.

We are accustomed to think of the Mediterranean area as producing luxury fruits, more especially the orange. But the sweet orange was not introduced there till very late, probably the fifteenth or sixteenth century of our era, and even the bitter orange was only introduced, at least to the western basin, by the Arabs. More than this, the Mediterranean climate is not one particularly well-fitted to

any of the citrus or orange-like group of fruits. This may seem an absurd statement, since oranges and lemons come to us so abundantly from Mediterranean areas; but very many of them are irrigation crops, are not, that is to say, grown with the natural rainfall. They belong, indeed, to a group of plants largely spread through the area by the agency of the Arabs, who were masters of irrigation methods. Some of these plants, like cotton and sugar-cane, have practically disappeared from the European side of the Mediterranean, though sugar-cane still lingers in Spain, where the Arab invaders stayed longest. That it remains worth while to grow citrus fruits by irrigation in the Mediterranean region is largely due to the fact that until very recently fruits were difficult to carry a great distance without serious loss, and the peoples of extra-Mediterranean Europe form a near, and not easily satiated, market. Now there is very keen, and increasing, competition for the orange market of Europe from other parts of the world, and where the tree is grown extensively in the Mediterranean area it occupies the ground alone, not in company with other crops, and forms a money not a sustenance crop.

The fruit-trees which form an integral part of the Mediterranean system of cultivation are not only closely adapted to the climate, but furnish essential food-constituents. This is especially true of the olive, the most characteristic tree. In contrast to the vine it is evergreen, and demands little water, which it can collect from the most unpromising type of sub-soil. Even in the areas where the summer drought is most severe, it can therefore be grown on slopes; it is, on the other hand, more sensitive than the vine to winter cold. One of its most curious features, perhaps associated with the small water-supply available, is the length of time the fruit takes to develop. The flowers appear in spring, but the fruits are not mature till late autumn, and in some areas the olive harvest continues throughout the greater part of the winter. This is a great

advantage in that it means that the Mediterranean cultivator's activities are spread throughout almost the whole of the calendar year. Not for him is the desperate rush to bring in the harvest before the onset of frost, which prevails in some other climates.

It is interesting to contrast with the olive the date palm of the desert to the south. Date palms are almost everywhere planted throughout the Mediterranean area, but, with the partial exception of the south-east coast of Spain at Elche, the summer sun is nowhere hot enough for the fruit to ripen regularly. We think of the date as a typical desert plant, and yet, as an Arab proverb tells us, its roots must be in actual contact with water ; it needs more water than the olive. Reserves in the date fruit are stored in the form of sugar, as they are, for instance, in temperate fruits like cherry and plum. But, associated possibly both with the slow maturation and the small water-supply, the olive fruit stores food material in the comparatively infrequent form of oil, and this oil is particularly palatable, and keeps better than cotton-seed oil, its modern competitor. Now animal fat, especially in the form of butter, is difficult to get in typical Mediterranean Lands on account of the scarcity of summer pasturage. The olive oil obtained by pressing the fruit is an admirable substitute, especially when used with green salads, which contain substances in which the olive is deficient, though they are present in butter. A digestible fat like olive oil is especially necessary to Mediterranean man since his diet typically includes but little meat, especially butcher meat.

Wine occupies a different but hardly less important place in the dietary. What has been already said as to the way in which the vines are grown helps us to understand the apparent anomaly that the grapes swell with juice precisely at the period when the rainfall is minimal or altogether absent. But the drying up of the streams makes it difficult for man to get pure drinking water at the time when thirst is greatest. To express the juice from the

grapes to get a drink is an obvious remedy, and suggests that fundamentally the vine is a kind of organic pump which brings water from the sub-soil to within man's reach. But, as we all know, the grape as plucked has a "bloom" on its surface. In that waxy bloom lives a kind of yeast, which, if mingled with the juice by the crushing process causes "spontaneous" fermentation, turning sugar into alcohol. Wine-making in its origin is thus a purely natural process. Most Mediterranean wines are "light," that is, have a small alcohol content, and such light wines, though not a food, are a valuable supplement to a diet so largely composed of vegetable matter as is that of Mediterranean man. Without it bread, beans, salad and oil do not give full satisfaction. Since also large quantities of fluid must be drunk, and in early days neither coffee nor tea was available, wine is a safer and pleasanter drink than tepid and probably impure water.

So much then for the significance to man of the two main fruit-trees. It may be added that others, especially the fig, have been cultivated from very early times, the fig apparently antedating even the olive; that its fruits can be dried for winter use is one of its great advantages, while the fig-tree, no less than vine and olive, is tolerant of summer drought. Most of the other fruits which we think of as characteristically Mediterranean, such as pomegranates, peaches, apricots and so on, have been introduced, and require summer watering in areas where the drought is intense.

The next point is to consider the relation between the typical crop-plants and the natural vegetation-types which we discussed in the last chapter. The winter crops are easily disposed of. Obviously they are the equivalents of the herbs, whether short-lived like the annuals, or with a short season of activity like the bulbous plants, which grow among the trees of the High Forest or the shrubs of the maquis in the same season. It is worth note, also, that just as grasses are not very abundantly represented in the

natural vegetation, so Mediterranean man has always found it difficult to grow enough of those cultivated grasses which we call cereals to satisfy his needs. He helps them out with the pulses, especially the different kinds of beans and peas, which in earlier days often formed the chief "bread-stuff" of the poor and the slaves. From early days, also, he got extra supplies from neighbouring areas, better fitted for cereal production, in exchange for his surplus of wine and oil, and for the jars which he made for the storage of these. Later, the Romans tried another method on a large scale, that of extending their dominion over corn-lands outside the Mediterranean area proper.

Note next that we may quite reasonably regard olive or fig groves as the equivalent of natural High Forest. We saw that the difficulties of the water-supply, the goats and man are the great enemies of forest in the area. Now choose a kind of tree not greedy of water, space the individuals well apart, and the problem of water-supply is solved. Protect your artificial forest by a stone wall from goats and other marauders, and you have at least a fair chance that it will prosper. Nor need you lose precious ground by the wide-spacing, for under the light shade of the olive cool season crops will grow well between the trees.

Similarly, the vineyards may be said to form an artificial, greatly modified maquis. The maquis plants often grow close together, so near as to form, for instance in Corsica, a perfect shelter for an outlaw. But the individual plants are stunted. Not so stunted, it is true, as those of the garigue, but yet the wild olive of the maquis is a mere shrub as compared with the cultivated olive tree. If then the numerous kinds of stunted bushes are replaced by the valuable vine, and that again is planted at considerable intervals so that competition for water is limited; if again it is severely pruned so that its strength goes chiefly to fruit rather than to shoot and leaf, an abundant crop of grapes may be expected. The plants themselves vary

greatly in size in different parts of the area. In Greece, which is for the most part peculiarly dry in summer, they are but low scrambling bushes. In the plain of Lombardy—which is, however, outside the area of true Mediterranean climate—they reach a great size, and are trained on other trees or shrubs specially planted for the purpose.

We have already seen that between the vines other crops are planted to utilize both the winter rains and the empty spaces. We may therefore quite justly say that Mediterranean man's great achievement is that he has, wherever this is possible, replaced the natural vegetation by a series of crops which make use of every drop of water, every square foot of soil, and yield him a complete dietary. In winter he makes use of the soil water, constantly replenished by the rains; in summer of the sub-soil water which is beyond the reach of surface evaporation. His year is continuous, not broken by long periods of inactivity; his attachment to the land comes from the fact that while at every season he must give some labour, at every season also he may hope to reap something.

But these facts have another side. Any cause which prevents him giving labour at all seasons breaks the chain, destroys the adjustment to natural conditions upon which his continued comfort depends. He may, as happened during the period of Rome's expansion, be removed as a conscript from his plot. Or, as has occurred time and again, his lands may be overrun by invaders to whom his methods are wholly alien. In either case the consequences may be disastrous; from the neglected terraces the soil is washed away; the trees may be ruined by neglect or disease. When this takes place reconstruction may be almost impossible. Whole tracts of land have indeed been permanently removed from the Mediterranean orbit, while the productivity of others has been seriously lowered. Since the meticulous care necessary can best be given when the holdings are small, relatively unproductive large estates—the *latifundia* of Italy—are at once a cause and a

consequence of neglect. They are a cause because adequate supervision is difficult, and the greed of the absentee owner may lower the actual cultivator's standard alike of life and of labour. They are a consequence because lands wasted by war or by the holders' absence on war service may cease to be able to produce enough to keep them and their families in comfort. But this is only another way of saying that the scale-large production of food-crops to which modern industrialized man is accustomed is not fitted for Mediterranean conditions.

In this connection a word may be added in regard to those areas, of which something was said on page 49, where the growth of trees and shrubs is impossible, but which yield winter pasture, or sometimes winter crops of cereals. Plains of this kind, as already said, are ill-adapted to the methods of the Mediterranean peasant, for there is not work to occupy him throughout the year, nor can he hope, as in the typical areas, to get something from his lands at all seasons. They are found in various parts of the Mediterranean area, as in Greece, where the plain of Thessaly is an example; in Italy, where, in addition to the Roman Campagna, already mentioned, they occur in the province of Apulia; in Spain they are especially well-developed. In modern times they are almost always scantily peopled, and divided up into large estates. Historically they have been of much importance because of the way in which they have attracted an alien element into the body politic.

The reasons demand a little consideration. In the cooler season, as already stated, these plains supply pasture, but they cannot maintain many grazing animals in summer. But the mountains which are so wide-spread in the Mediterranean Lands can support flocks in that season, because of the way in which elevation increases rainfall. So also can those areas on the northern margin of the Mediterranean region proper which extend into the zone of summer rain. In both the latter areas winter pasture is scanty or

absent. The growth of winter grass must have been one of the attractions which drew the early invaders of Greece to the plain of Thessaly, and, at a much later stage, the Goths and Vandals into Spain.

The very limited extension of Greek colonies in the part of Italy which now forms Apulia, again, was doubtless partly due to the fact that the indigenous peoples of the interior alternated according to the seasons from the upper pastures to the plains, as do many of the inhabitants of that province to-day, and had thus a refuge in the hills where they could not be easily attacked, while in the winter they would be a menace to lands which could be cultivated. At the present time, and for a prolonged period in history, this seasonal movement, which the French call *transhumance*, has been extensively practised in northern Greece, in south-eastern Italy and in Spain.

In the last-named it was accentuated by the long Arab occupation of the best lands, and was—and remains—a great obstacle to effective cultivation even of the areas where the typical crops will grow. For to the cultivator the migratory herdsman is always an enemy; often too mobile and too powerful to be directly attacked, he can destroy so effectively that months of patient toil can be nullified in a very short space of time. It is important to bear such facts in mind in connection with our later historical survey; without an appreciation of them the story of the different invasions into Mediterranean Lands loses half its point.

We have thus to think of the Mediterranean type of cultivation as remarkably productive where it can be carried on continuously without serious interruption; but at the same time as so poised that even minor disturbances have far-reaching consequences.

So far we have considered only the typical food-crops and the methods of cultivation. But the effects of these on man's distribution and on the nature of his settlements is a subject of equal interest.

Throughout the area man, as we have said, is a town-dweller, and it is a curious fact that the towns tend to be placed on the tops or upper slopes of hills, wherever suitable hills are available. That this is partly due to the survival of the fittest seems clear when we note how many towns placed on the low ground have had a history of disaster.

Roman Salona was, one might suppose, well placed, since it lay beside a stream of good water at the end of a sheltered inlet, with fertile land around, and hills giving protection from land-winds behind. But Roman Salona was destroyed in the seventh century of our era, and only the fact that the Emperor Diocletian had built a fortress-palace a few miles away enabled refugees from it to find shelter, and continue their urban life (Fig. 1).

Naxos in Sicily (see p. 22), also with a lowland position, was similarly destroyed. Behind its site lie hills far more fertile than those of Dalmatia, and the refugees from Naxos, after a period of homeless wandering, found a refuge in a hill-town, which exists to-day as Taormina.

Such facts suggest one of the advantages of the hill-site, that it gives protection from possible enemies. Those enemies might, as was the case with Naxos, be the inhabitants of another Mediterranean town; or they might come from the continental interior, as did the Slavs who destroyed Salona. But, down even to the nineteenth century, piracy constantly recurred in the Mediterranean Sea. Part of the cause certainly lies in the fact we have already emphasized, that only certain areas are fertile, and these alternate with barren strips. Peoples displaced from the productive areas could often only find a living by piracy or trading; and in the Mediterranean area the two have always been closely related. The most efficient traders were rarely averse to robbery or slave-raiding when occasion offered; while some of the groups which have earned an inglorious reputation as robbers, murderers and common cut-throats were perhaps only incipient trading-communities prevented by their rivals from carrying on legitimate

trade. Thus again and again in Mediterranean history there was an "Elizabethan Age," when the line between heroic adventurers and sea-robbers was difficult to draw.

Because then of the prevalence of piracy, the hill-towns tended to be situated back from the shore, either high above it, like Taormina, or so tucked into surface undulations as to be invisible from the sea, as occurs in many of the islands of the *Ægean*. The problem of combining security with access to the sea was one that Mediterranean man found it difficult to solve.

But protection from land-foes or sea-foes is not the whole explanation of the hill-site. Another, which it is believed is not applicable to very early days, lies in the malarial danger. Even in Italy, where much has been done to reduce the ravages of this disease, it is still often unsafe to be found at evening on the lower grounds, especially near water. In Macedonia, where almost nothing had been done, at least till the British and French troops occupied the region during the war, the peasants travel long distances from their fields and fruit-groves to their upland villages, for the lowland swamps are death-traps.

Finally, and perhaps most fundamental of all, the hill-site gives easy access to the slopes on which the characteristic terrace cultivation can be carried on. If we take Taormina as an example, we find that in addition to the downward slopes which stretch away practically on three sides of the town, there are also upward slopes to higher hills behind, themselves often fortress-crowned, so that they can form a last refuge in times of stress. The actual town also stands on an undulating plateau, capable of cultivation even close to the houses. The crops, we must repeat, are varied, and may be said to dovetail into one another, so that one helps out the deficiencies of another, as with olive oil and green salads. The hill-site gives every-variety of exposure and multiplies the diversities of soil and slope and the amount of soil and sub-soil water.

Again, since the houses are sleeping-places rather than homes in our sense, since also the methods of cultivation do not require many farm animals for ploughing or other purposes, nor large implements, and since the products of the land are substances like oil and wine, not bulky to store, farm-steadings such as we see in our own land are not necessary, and the people, with their oxen and goats, can be herded into a small space. That there may be little level land on the hill-side is therefore a matter of small consequence.

One disadvantage of the hill-site has still to be mentioned. This is the question of water-supply. Both the Greeks and the Romans learnt early to supplement such precarious sources as local springs and rain-water cisterns by carrying water, often from a great distance, in magnificent aqueducts. How skilled they were is shown not only by the magnificent ruins which remain, but from such facts as that the aqueduct which supplies Spalato with water to-day is but a modernized reconstruction of that which Diocletian built to serve his palace. The engineering skill of Greeks and Romans alike was such that they could bring water even to a hill-top town across intervening valleys. At the same time this question of water-supply must often have been part of the motive for the frequent selection of a spur, with higher hills behind, as a town site.

In the Atlas Lands of Africa, despite the Roman example, still set forth in ruined aqueducts, water towers and cisterns, the native Berber cultivators have never learnt to bring water to their hill-villages by mechanical means. It is one of the most curious spectacles of the Algerian Atlas to see the long trains of women and children set forth morning and evening to seek for water in the deep valleys below. This water is carried back either in the primitive jars or in the discarded petrol-tins which form the modern substitute. The advantages of the hill-site must indeed be great when this ceaseless labour is worth while.

NOTES

Soils and the processes involved in their formation can be studied in any of the ordinary books on physical geography, with the help of such special works as Hall's *The Soil* (London: Murray). The origin of the cultivated plants of the Mediterranean area is discussed, along with those of other parts of the world in Alphonse de Candolle's *The Origin of Cultivated Plants* (International Scientific Series). Brief accounts of the more important of them will be found in Bruhnes' book translated as *Human Geography* (Chicago: Rand M'Nally).

Large-scale maps should be used to pick out a representative selection of hill-towns. The maps issued with many guide-books, such as Murray's or Baedeker's, are very useful. Freeman's *History of Sicily* gives maps and good descriptions of the historic towns of that island. Dainelli's *La Dalmazia* (Novara: 1918; text and plates) gives in the attached atlas some very interesting detailed maps of the Dalmatian towns.

PART II

THE HISTORICAL SEQUENCE

CHAPTER IV

THE MARGINAL LANDS

The river-valley areas ; their natural characters. The need for irrigation. Their contribution to Mediterranean civilization. Contrast with Far Eastern Lands. Egypt and its civilization. Characters of the Nile Valley. The Significance of the Cataracts. Contrasts with the Tigris and the Euphrates. The Tigris-Euphrates as a highway. Geography of the trough ; position of Assyria, Babylonia and Elam. The lands of Sumer and Akkad.

WE have seen that Mediterranean cultivation depends upon natural rainfall, the winter crops being constantly moistened by showers, while the summer ones use the stored water of the sub-soil.

But eastward, as the influence of sea-winds become less, the rainfall diminishes steadily in total amount, without losing its winter character. We come rapidly then to the area where man can no longer hope that his crops will be "watered from heaven." But we come also to the land of great perennial rivers, subject to periodical flooding. In the case of the Tigris and Euphrates the floods are due to the melting of the snows in the mountains in which the headwaters take their rise, and thus the maximum flow is

in spring. But the Abyssinian tributaries of the Nile originate in a region of heavy monsoon rainfall, and the main stream is thus flooded throughout the whole of the summer months.

The difference in the season of flooding has exerted profound influence on the history of the two areas. In both, marginal strips at the sides of the rivers are alternately dry and covered with water. In Egypt the flooding of these lands takes place in the hottest months, and as the water drains off into the falling river in November, the sun's heat—and therefore evaporation—is diminishing, and enough water is retained by the soil to supply the needs of cool season crops, such as wheat, barley and beans. But in Mesopotamia the floods come in March, April and May, and as they subside the surface is dried out by the hot sun of summer, so that unless water is supplied artificially then, growth soon ceases.

The result is that while until the modern period what is called the basin system of irrigation was practised in Egypt, in Babylonia perennial irrigation was necessary from the beginning, if cereals were to be grown in any amount. In Egypt, that is to say, by a simple system of canals water was led off from the flooded river into tracts of land enclosed by dykes—the basins. In these fertilizing silt was deposited, and when the sluices were opened and the water allowed to drain off, a moistened surface was available for seed-sowing. This meant on the one hand that the summer heat was largely wasted from the point of view of production, save in so far as water could be laboriously raised by some form of mechanical appliance, worked by human or animal power, to areas normally out of reach of the floods. On the other hand, it resulted in great productivity during the cool season, attained by a simple method.

In Babylonia it was necessary to dam back the spring floods in such a fashion that the water could be carried by canals to the cultivated areas throughout the hot season.

This meant much more elaborate irrigation works, difficult to construct, and demanding ceaseless care for their maintenance. War and internal turmoil were peculiarly dangerous just because, if the dams and regulators were neglected, or the canals allowed to become choked, the floods might undo in a few hours what it had taken years of labour to accomplish.

Because of the possibilities of irrigation the river-valley areas resemble Mediterranean Lands in that continuity of production throughout the year is—at least theoretically—possible. But they differ sharply in that this continuity depends not upon natural rainfall but upon irrigation, which, except when on a very small scale, in its turn involves a centralized state controlling the canals. Here is a very definite contrast to the small, independent, self-sufficing, Mediterranean community, established upon its hill-top, with its surrounding olive-groves, vineyards and corn-patches.

A second contrast, equally striking, is the luxuriance of summer growth in lands which can be irrigated in that season. Under favourable conditions the ground may appear like a veritable garden of Eden, producing everything that “is pleasant to the sight and good for food”; in other words the number of possible crops is much greater. In that water-demanding summer crops can be grown in parts of these valley areas, they resemble the monsoon lands of the Far East, with the notable difference that the latter do not always or necessarily depend upon irrigation, for the summer rains are often copious. It is worth while noting that when we speak of the East, with or without the addition of the adjectives Near and Far, the intention is, in part at least, to emphasize this possible similarity of crops and thus of modes of life.

The fact that water could be obtained in abundance in the river-valley areas, and applied to the crops as they required it, made life much easier there than in the Mediterranean Lands, where irrigation is rarely possible, and the

natural rainfall is scanty or entirely absent in the summer, and often not plentiful at any season. Great advances thus took place earlier along the banks of the great rivers than immediately round the shores of the Mediterranean. Indeed the rise of Mediterranean civilization depended on the fact that the peoples concerned were able to borrow so much from those who had had the advantage of an earlier start. Thus almost all the plants they cultivate reached them in an improved form; their implements, including the plough, their domesticated animals, their knowledge of methods of tillage were in the European part of the Mediterranean at least, for the most part derived and not original. Man there had merely to fit the acquisitions of other peoples to his own local conditions. This is the reason why we must begin our study of man's progress within Mediterranean Lands by giving some account of the regions from which he borrowed most.

These were especially the Marginal Lands of Egypt and of the Tigris-Euphrates area. Marginal these lands are in a double sense—both literal and climatic. For though there is at best but little rain, none in the Nile valley and very little in either the Nile Delta or Mesopotamia (annual fall at Baghdad 9"), yet where rain does fall it is winter rain, as in the Mediterranean region. Again, because both Egypt and Mesopotamia lie quite near true Mediterranean Lands, intercourse has always been easy and began early. A further point of importance is that the trough in which Tigris and Euphrates run for the greater part of their courses is bounded to the north and the north-west by mountain ranges. We have already suggested the possibility that man very early found a home in some of the valleys sloping down from these. Near the hills the winter rainfall increases, if only to a minor extent, giving a nearer approach to ordinary Mediterranean conditions. It is quite possible that some of the first steps in the production of many of the useful plants which have long been cultivated in the Mediterranean area were taken here, the scanty

winter rainfall being eked out by help of the water of the mountain streams. It is at least an interesting exercise to take such a book as de Candolle's *Origin of Cultivated Plants* (p. 69), and note what is said as to the probable area of origin of the more familiar crop-plants of Mediterranean Lands. In very many cases it will be found that these have their known or presumed home in Armenia or Persia; this at least suggests that a good deal had been learnt before man succeeded in occupying the large river-valleys and carrying out extensive irrigation schemes.

The importance of the nearness of the Marginal Lands may best be realized by contrasting their contribution with that of the Far Eastern Lands. Though it is generally believed that the civilization of China is derived and not original, in the sense that the peoples who first occupied the valleys and plains of that country had made considerable advances before their arrival, yet there can be no doubt that at historically a very early date much was learnt there. During the course of the ages also, the Mediterranean folk got much both from India and from China. But the vast stretch of waste land, mountain and desert, which separates the western area of winter rainfall from the eastern one with a heavy summer fall, made transference either of knowledge or of useful plants and animals a slow and difficult process.

Even rice, which we are apt to think of as characteristic of both the Tigris-Euphrates and the Nile valley, did not reach the former till more than two thousand years after its cultivation had been practised in China, that is, not till some time before 400 B.C., and was much later in reaching Egypt. So far as the Mediterranean proper is concerned, it may be said broadly that it was the Arabs, at the period of their great movements, who introduced some of the more valuable crops of monsoon lands to the western world. This is true of rice, sugar-cane, cotton and oranges, all plants demanding both water and heat simultaneously.

Summing up then we may say that the Marginal Lands were of great importance in the history of Mediterranean civilization, first because they were easily accessible from the Mediterranean, and second because they had a climate of broadly similar *type*, with the added advantage of greater supplies of available water. But in the very early days that flood-water could not be taken full advantage of, so that the plants first cultivated were probably of a water-economizing character, well-suited for direct transference to the Mediterranean area. As irrigation was more and more made use of, and capital accumulated, experimentation could be carried on on a great scale. The results of these experiments were transmitted to the Mediterranean peoples.

The question whether civilization arose first in the Euphrates valley or in that of the Nile is not one which can be definitely answered meantime. But there can be no doubt that for our purpose the former area is the more interesting.

Geographically and historically alike, Egypt has always shown *relative* stability and self-sufficiency. On the other hand, the more closely geographers and archaeologists have studied the Tigris-Euphrates trough, the clearer it becomes that the land surface has been constantly changing through recent geological time, and that as a result both of those changes and of contacts with neighbouring peoples, the centre of gravity has tended steadily to shift north-westwards. Bounded on both sides by the desert, partially at least cut off from the Mediterranean by the delta, the Nile valley, during long periods, has been more or less isolated, able to work out its own problems with infrequent outside interference, with no continuous menace either from upstream or the desert. It had also, as we have seen, the great advantage of a simpler irrigation system.

But the Tigris-Euphrates trough is bounded on one side by mountain ranges, themselves but the last ramparts of a plateau which forms part of a vast continent; isolated it has never been, but always exposed to flank attack.

Further, the trough itself forms a great highway, from which many routes branch off. Upstream there is easy access not only to lands definitely Mediterranean in character, but, over the lowered western lip of the trough, to the Midland Sea itself. Babylonia at least was always lacking in much that civilized man needs, so that even apart from the open road there was every reason why trade should develop early. Trade again means necessarily the struggle for the highway, and the control of a road lying along the hill-margin of a furrow is easier for the mountain-folk than for the valley-folk. The combination of the conditions brings us to the historical sequence of Babylonia—Assyria—Phoenicia, with all that the last-named power meant to Mediterranean man.

But if that sequence is of most interest to us, yet we cannot wholly neglect Egypt, if for no other reason because the contrasts between the two areas can only be appreciated if something is known of both. Nor are the two regions wholly isolated from one another. For, apart from the desert ways from the Nile valley to the Red Sea, which give a possibility of communication by sea with the Persian Gulf, there are natural routes from the Nile Delta across the Sinai Peninsula to Syria, whence the Tigris-Euphrates trough can be reached.

Historic Egypt is the area from the first cataract at Assuan to the sea, and thus includes both valley and delta sections. The essential difference between the two is, of course, that in the delta section no rock is visible, and the stream has no defined bed, spreading out into a number of sluggish distributaries, running amid marshes and mud-flats. Seawards there are sand-dunes bounding brackish lakes, and the salted land forms a barren fringe to the cultivated belt.

In the valley section the river flows in a deep and narrow rift between walls of rock, differing in character in the various parts of the valley. Those differences have had a very important effect on human life, and a few words must

be said about them. Putting the matter in the broadest and simplest way we may say that in the Nubian Desert and the Egyptian Sudan the "core" of Africa appears at the surface in the form of old, hard, highly resistant rocks such as granites. These rock occur also in the Sinai Peninsula, and contain valuable minerals—a very important fact. Northwards these basal rocks are covered by a great sheet of sandstone, softer and more easily worn away, whether by running water or by atmospheric agents. From Assuan to beyond Jebel Silsila the Nile cuts through this sandstone, which stands up on either side of the valley, here averaging only about two miles wide, in great cliffs (Fig. 2).

On the other hand, at Assuan and to the south of it the sandstone has disappeared, and the river has cut down into the hard rocks beneath. At Kalabsha, some thirty-

five miles upstream from Assuan, the valley narrows to a gorge only about 170 yards wide—so hard are the rocks, so resistant both to stream and atmospheric wearing. But they are not throughout equally hard. The stream,

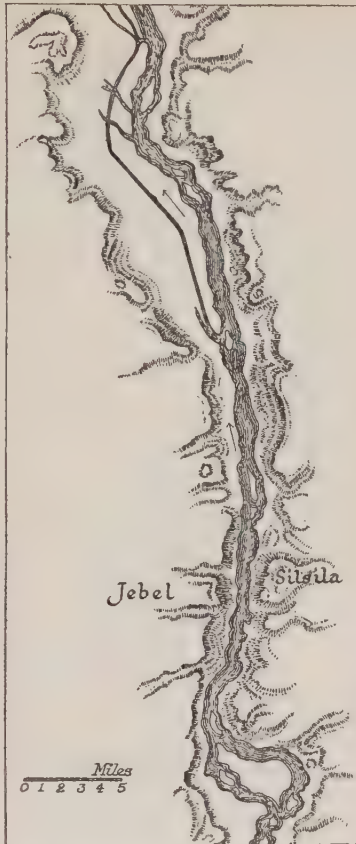


FIG. 2.—THE NILE VALLEY IN THE SANDSTONE REGION OF JEBEL SILSILA.

acting through long ages, has here found weak places through which it could cut, and there stretches which have resisted all its efforts. These form reefs and islands, and

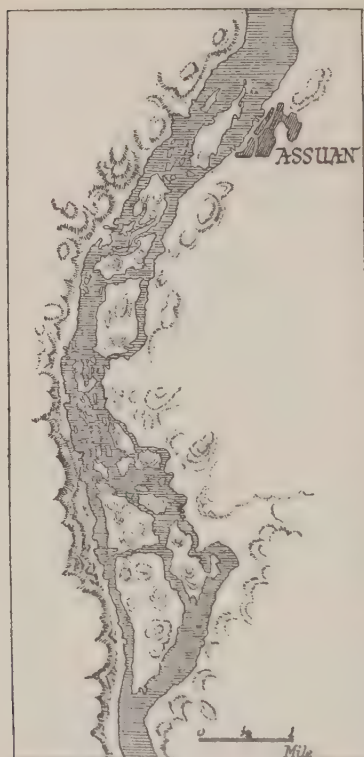


FIG. 3.—THE FIRST CATARACT OF THE NILE AT ASSUAN.

between them the water rushes with a rapidity reinforced by the partial block. Navigation is thus interrupted, and the "first cataract" is formed (Fig. 3). Six times between Assuan and Khartum is the process repeated, the river in each case coming down upon the hard core.

To complete our picture of the Nile rift we have to add that downstream from about Luxor, as far as the head of the delta, which lies near the site of ancient Memphis, the river flows through a sheet of limestone lying on top of the sandstone. This limestone is not only easily cut through but the walls of the valley so formed wear back readily. The rift is thus wider here, and may even reach a maximum breadth of thirty miles.

Nowhere, however, is the belt which can be cultivated, because within reach of the water, wider than about nine miles, and it is generally much narrower.

If these essential facts are borne in mind, the conditions of human life here are soon grasped. From Assuan to the delta navigation is uninterrupted and easy both upstream

and downstream. The force of the water is not enough to prevent upstream travel, more especially as advantage can be taken of winds which blow against the current. Again, though the Nile steamboats now ascend above Assuan, by means of a lock, yet, especially at the time of low water, navigation is difficult above this point; the cataract is obviously a natural protection against upstream foes. Since also above Assuan, for a long distance, there is little or no land within the rift lending itself to cultivation, there was little temptation for the downstream cultivators to ascend above this point. It formed a natural upper limit.

These are very obvious facts. A little more reflection is necessary to show that not the Assuan cataract alone but the whole series up to Khartum have been of fundamental importance in the development of Egypt.

So far we have been thinking of the Nile floods as wholly beneficial, as bringing only the water so essential in a dry and thirsty land. But there is another aspect. In lands where the necessary water comes normally from the clouds, floods are dreaded by farmers, because of the way in which they spread stones, gravel and coarse material of all sorts over the rich vegetable mould in which their crops grow. It is one of the great natural advantages of Egypt that this danger is practically absent there; conversely the Tigris-Euphrates area is peculiarly exposed to it. And it is to the outcrops of hard rocks which give rise to the cataracts that Egypt owes its immunity.

Very simple observations in the hill regions of our own country enable us to understand the mechanism of the process. If we follow up a small mountain torrent we find, quite frequently, an alternation of swift and still reaches. In the former the stream is narrow but deep, and is flowing either through a miniature rocky gorge or over a rock-bar in a waterfall. Above the gorge or waterfall it is wider and shallower, and no rock surface may be visible, the stream-bed and its margins being covered with gravel, sand or silt. The explanation, of course, is that the stream

was partially dammed back while it was cutting through the rocky barrier, and the slackening of the current led to the deposition of the load of waste it was carrying. So it is on a far grander scale with the Nile. The whole series of barriers checks the force of the current, and when the river emerges from the last rapid at Assuan it is carrying but a moderate load of fine silt, together with dissolved mineral substances which form plant food. When the flood-waters spread out therefore over the land, they moisten and enrich it, but do not spread devastation and ruin.

It is, however, especially in connection with irrigation that the relatively small amount of suspended matter in Nile water is important. In the canals and ditches the flow is necessarily slack as compared with the swiftly-flowing current of the main stream. Here again, therefore, the carrying power of the water is diminished. If there is much suspended matter its deposition will soon choke the canals, and ceaseless labour and vigilance may be necessary to keep them open. If blocking occurs the pressure of the water will burst the canal banks, and growing crops may be ruined, while at the same time more distant fields are deprived of water.

From these dangers Egypt is largely free, while in the Euphrates region, as Sir William Willcocks tells us, the silt-laden water makes irrigation "terribly difficult." He gives a very instructive anecdote of an alarm which he himself witnessed below Hit during the month of May when that river was in full flood. The cultivators were all on the alert owing to the passage of Beduin shepherds with large flocks on their way from the desert towards the irrigated lands. At the sound of a gunshot the cultivated plain became alive in an instant with men on foot and on horseback, some with guns and some with *spades*. Desert nomads and a choked canal are dangers equally great, but requiring different weapons for purposes of defence.

Once again, the cataracts of the Nile greatly facilitate the construction of irrigation canals. It is clear that when

a river narrows to a well-defined gorge with firm rocky walls, it is fairly easy to tap the stream above the rapid by a canal, and lead off water to irrigate lands downstream out of reach of the ordinary floods. It is very much more difficult to construct and maintain canals when such gorges do not exist, or where, as happens in the case of the Euphrates, the bar giving rise to the cataract is formed of relatively soft rock, so that it is notably worn down, with a consequent loss of "head" of water, in the course of a few thousand years. At Assuan so hard are the rocks that hieroglyphics cut some 3500 years ago are still sharp and fresh.

Summary as this sketch is it shows us the significant features of the essential Egypt.

From Assuan to Memphis flows the ribbon of the Nile, margined by the rich black soil which is fertilized by the waste of the Abyssinian mountains, and watered by their floods. Walls of sandstone or limestone shut this fertile strip off from the yellow sands of the desert, and the freedom of movement within the valley is in striking contrast to its difficulty without, whether over the desert or through the rapids above Assuan.

In its broad outlines at least the human response to the natural conditions is also simple and easily grasped. The first point is the essential continuity of the major part of the population from the earliest times we can trace to the present day. The peasant cultivators of to-day seem to be the direct descendants of the earliest inhabitants of the valley, and they have continued to persist throughout all the vicissitudes of historical and pre-historic time.

At first they would appear to have subsisted on the game and other natural resources of the unreclaimed lands. Then, either on their own initiative or as a result of contact with invaders furnished with a better material or mental equipment, they learnt to group themselves in small communities, carrying on cultivation with the help of simple forms of irrigation.

But a rapid increase of population and the accumulation

of a surplus can only occur when the characteristic basin system of irrigation is fully developed. This involves the existence of an autocratic and centralized state authority, which can alone ensure that the canals are kept in order, and that the water is carried off before it has time to stagnate and deposit injurious salts. The fellaheen remain, as Prof. Vidal de la Blache puts it, "firmly implanted in their domain"; but the history of Egypt is the rise and fall and renewed rise of an efficient governing power, capable of binding the separate units into a whole. Given the water, the peasants may be trusted to cultivate the land and to increase and multiply. If the irrigation system is not adequately maintained the area capable of cultivation diminishes, and the population dwindles; but it has always shown a remarkable power of responding to improved conditions.

Thus, with somewhat fuller knowledge, we come back to our original statement. Egypt has always been a land of relative stability, swinging, it is true, from riches to poverty and back again, from a high state of civilization to backwardness; but never ceasing to be the home of man, never falling back into a condition of utter waste, never perishing as Babylon perished—with a still uncertain hope of resurrection. It has always also been relatively isolated, a land standing somewhat apart from the main current of historical events, because the natural conditions are so special that lessons learnt there are of limited application elsewhere.

In sharp contrast man in the Tigris-Euphrates area seemed in early times to be always fighting in a losing cause, and yet, despite the defeat and fall of successive communities something was always being learnt for humanity. The story, as it is being slowly spelt out by archaeologists, is full of drama, though here we can give but the barest outline.

The Tigris-Euphrates trough (Fig. 4) is a true earth-hollow, stretching in a north-west to south-east direction between folded mountains and a crust-block, and filled

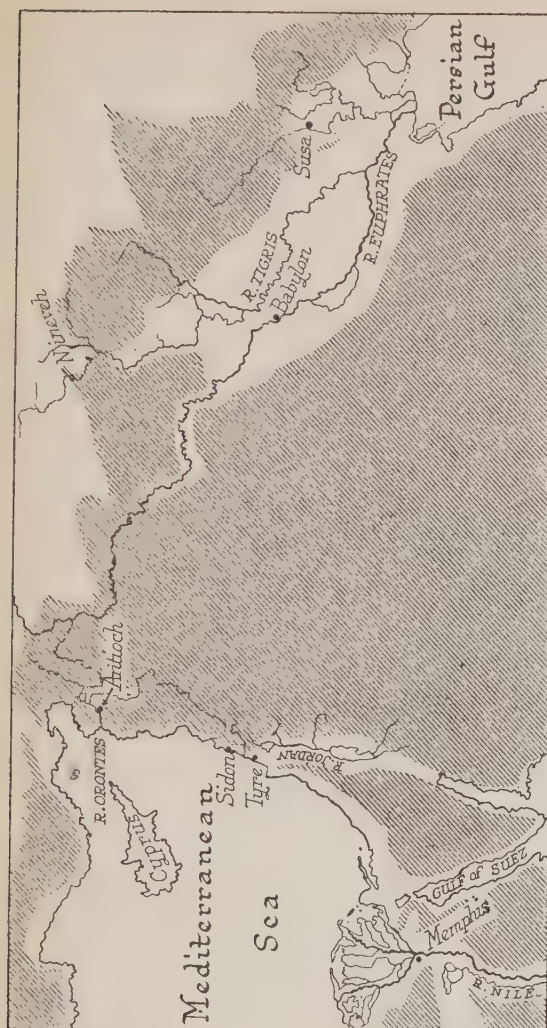


FIG. 4.—THE RELATIONS OF THE TIGRIS-EUPHRATES TROUGH.

The area which rises over 600 ft. above sea-level has been shaded, but no attempt has been made to indicate the fact that the Jordan valley and the Dead Sea sink below sea-level. See text.

with the waste of the mountains. The mountains form nearly a semi-circle around it, margining the furrow on the north-west, north and north-east, while south-westward and southward lies the crust-block, forming the Syrian and Arabian deserts. South-eastward is the Persian Gulf and due west a highland belt separates the trough from the Mediterranean Sea. Immediately behind the Gulf of Alexandretta this highland belt narrows to a single



FIG. 5.—THE PASSES OF THE AMANUS RANGE.

The Amanus Gate, or Bogtche Pass, is that now utilised by the Baghdad railway, which runs beneath it in a tunnel. The relation of both passes to the great westward bend of the Euphrates should be noted.

hill-range, the Amanus, pierced by three gaps (Fig. 5). To the north is the Amanus Gate, through which the Baghdad railway now runs; to the south-west is the Beilan Pass, or Syrian Gate; yet further south the River Orontes, with the pass-town of Antioch on its banks, breaks through the last slopes of the range in a gorge. Once the coastal highlands have been negotiated by one or other of these gaps, it is easy going to the Persian Gulf. As contrasted with the

Nile Valley, therefore, the Tigris-Euphrates trough is a natural passage-way from one sea to another, from the Mediterranean to the Indian Ocean and the lands beyond.

Euphrates and Tigris alike rise in the Armenian mountain-knot. The former breaks through the last chain in a deep gorge and enters the trough near Birijik. Almost at once it swings westward in a great bend which brings it within a hundred miles of the Mediterranean Sea, and flows, with scarcely any tributaries, over a plain which becomes steadily more arid as the hill country is left, but, none the less, in winter at least, is rather steppe-desert than desert proper. It is, that is to say, able to support nomads and their flocks.

Down to Hit, where the stream crosses the last rocks and enters the delta region, the valley offers relatively little opportunity for close settlement. It is narrow and rock-walled, and the force of the floods and the silt which they bring down make irrigation difficult. The difference, that is to say, in the ease of living between narrow valley and surrounding steppe-desert is not sufficient to give valley cultivators such an advantage that they can organize themselves adequately against aggression. The cultivators of to-day, few in number, are compelled to have resort to that most dangerous form of defence—the paying of blackmail.

On the other hand, downstream from Hit, where a valley in the strict sense no longer exists, and the water has become far less silt-laden, there is abundant land available for cultivation under irrigation. That all the early settlements were placed in the lower part of the delta section of the Euphrates is the second marked contrast with the Nile, where the valley section seems to have developed first. Babylonia, and the communities which preceded Babylonia, arose on or near the Euphrates and its branches in the delta region.

Owing to the direction of the marginal mountains and the presence of foothills, the emergence of the Tigris into the plain is less sudden than that of the Euphrates. A further contrast is that it receives from the mountains

which bound the Persian plateau powerful left-bank tributaries, of which the Great and the Little Zab are the most important (Fig. 6).

The essential feature, however, of the upper part of the trough section of the river is that it has the hill country on its left and the desert on its right, so that the Tigris forms a line of demarcation between the two zones. Alluvial land in its actual valley is much rarer than in the Euphrates valley, though some occurs near Mosul, itself close to the ruins of ancient Nineveh. But the climate is slightly less arid than in the country through which the Euphrates runs, and access to the hill-country with its streams is easy. Most important of all, up to Mosul the Tigris valley marks the line of a natural highway which has been used since trade began in this part of the world. At Mosul this highway turns westward, along the line of junction between mountain and plain, past such towns as Nisibin, Harran, Carchemish (Jerablus), the Baghdad railway following more or less definitely the ancient route. The angle where the highway swings westward away from the Tigris marks the original domain of Assyria, essentially a trading—and raiding—state.

Its lands were not fitted for the early rise of a civilization based upon tillage. There is but a limited amount of suitable ground; the cold in winter is severe; perhaps most important of all the hill-country with its reservoirs of population was too near for the necessary safety to be easily ensured in the early stages.

But, as soon as the early Babylonians in the Euphrates delta had learnt to cultivate grain on a great scale by the help of irrigation, they found, as their needs increased, that if their lands gave much they also lacked much. They contained no stone, no metals, very little wood, could produce neither olive oil nor wine. But these could be obtained from the upstream hill-country in exchange for the Babylonian surplus of corn and fine wool. The original Assyria was therefore a Babylonian colony, or, better



FIG. 6.—BABYLONIA, ASSYRIA AND ELAM.

Only the more important of the historic sites have been marked. Note that the topography of the head of the Persian Gulf is that of the present day, and the land-surface has grown steadily seawards since early times. Thus Eridu was the port of Babylon.

perhaps, a series of trading posts, placed where incoming traffic left the landway for the waterway of the Tigris, placed also near the point where the road from the Mediterranean Sea and the west joined roads from the northern mountain-knot, and also from Asia Minor.

The details of Assyrian history are complicated enough, and need not detain us ; but there are some interesting points in connection with the progressive northern shift of the capital (Fig. 6).

Before 2000 B.C. we know that the town of Ashur, the name-city of Assyria, existed on the site of the present Kala Shergat, and that it had Babylonian connections. By 1800 B.C. the capital had shifted upstream to Nimrud, and two hundred years later to Nineveh (Fig. 6). In other words, the Assyrian centre was becoming more and more definitely what geographers call a "corner-town," a point where a bend takes place on a main line of communication, with subsidiary routes coming in at the bend. Nineveh commanded a main line of entrance of goods into Babylonia—for the Euphrates, flowing through a desert area, is a bad line of communication—and similarly the main line of exit. It was also the point where downstream goods were transferred from land to water. At such sites, on a trade-route, important towns tend always to grow up. It is easy to understand then that as Babylonia advanced in civilization downstream, and demanded more and more from lands of other characters, so also would Assyria, who held the gate, prosper upstream. One of the difficulties, of course, was always that other peoples, for example the Hittites of Asia Minor, were also near enough the road to perceive the advantages to be gained from seizing it. But for our purpose here it is sufficient to note that not only did Assyria always tend to expand westwards, in order to hold more and more of the main road, but that also she advanced south-eastwards to conquer Babylon in the lower part of the plain, and along the mountain border to overthrow Elam, another early rival of Babylon.

Below Kala Shergat the Tigris flows chiefly through desert to enter the delta region below Samarra. Near Baghdad, about 100 miles lower down, it approaches within 35 miles of the Euphrates, and here we are definitely within the region where the two streams begin to mingle their waters in channels which are partly artificial and partly natural.

Still another set of facts is necessary to complete our picture of the setting of early Babylonia. Far to the south-east two important rivers succeed in breaking through the mountain wall which bounds the plateau of Iran, and carry a heavy load of silt into the lower end of the trough. One of these is the Kerka, which had Susa, the capital of Elam, on its banks. Its waters are now lost in swamps, but in early days it seems to have reached the Persian Gulf. The other river is the Karun, which also once entered the Gulf, but has built up so large a delta that it has blocked its own former path, and now joins the Shatt-el-Arab, or united Tigris and Euphrates. It is the Karun, apparently, which has been responsible for the rapid advance of the shore-line here, an advance which has led to Eridu, the port of early Babylonia, now lying 125 miles from the sea.

Now the country through which the Kerka and Karun flow for part of their course was Elam—"the mountain that strikes terror," as it was called by a king of Lagash, one of the cities of Babylonia, in an inscription dating from about 2900 B.C. In those days the alluvium laid down by the Karun must have been far less extensive than it is now, and Elam was essentially an upland country, peopled by mountaineers always ready to raid Babylonian lands. Often driven back by punitive expeditions, they yet constituted a perpetual menace to the cultivated lands of the delta. Again the contrast with the relative security of Egypt is very striking.

So we come to early Babylonia, with Elam a perpetual thorn in its flank, with Assyria, a more redoubtable foe, yet to be. But we can go even further back, and say

something of the days before Babylonia had become a great unified state.

Of the first origin of settlement in the Tigris-Euphrates delta nothing is yet definitely known. But somewhere about 4000 B.C. there is evidence that near the lower Euphrates and its branches a number of cities existed, each, with its surrounding cultivated land, forming apparently a small autonomous state. The northernmost of these cities was Opis, placed not far from the present site of Samarra, the most southerly Eridu, then a port.

But although there is no evidence that anything but limited and temporary unions for purposes of attack or defence existed among the city-states in early days, yet, so far as language and race characters are concerned, there is a marked contrast between a northern and a southern group. Nippur (Niffur) marked the line of separation between the two groups, and of the northern series—in addition to Opis—Kish and Babylon were important, while Ur, Lagash, with Eridu, were members of the southern group (Fig. 6).

The northern cities were peopled by Akkadians, a Semitic people with long heads, always represented as bearded; their country was Akkad. On the other hand the people of the south, of the land of Sumer, had rounded heads, and were either naturally beardless or shaved.

The origin of these Sumerians is not definitely known, but there is some reason to believe that they entered the delta from the eastern highlands. There is at least a certain amount of evidence that they came originally from a hill country. Part of this evidence is found in their religion. Their deity seems to have been originally a storm god, dwelling in the mountains, and speaking to his worshippers in the thunder which reverberates along the crests. One of their characteristic buildings was the "stage-tower," the origin of the "Tower of Babel" of the Bible, which has been regarded as an imitation mountain, as it were, and bore the temple at the summit. This certainly suggests that the original home of the god was in

the "high places"; though others regard the stage-tower as explained by the necessity of keeping the temple with its treasures above the reach of the floods. The Sumerians appear also to have been skilled in working in stone, and since no stone occurs in the delta this art could scarcely have been learnt there.

If we may think of the Semitic Akkadians as originally desert folk, then the idea that presents itself is that the delta was first peopled from both sides, from the desert and from the mountains. It is possible that the Akkadians took the first steps in cultivation in that part of the Euphrates valley where a narrow alluvial strip occurs (p. 85), and where water can be obtained from the river, if only by laborious lifting against gravity. They may then have advanced into the northern part of the delta region. We know that here irrigation was relatively difficult, for the water is still turbid; but on the other hand greater control of the water supplies is possible than further down.

Some authorities believe that the Sumerians first arrived as conquerors, having made considerable advances in their mountain home. We do not, however, know which group first succeeded in producing from wild grasses the large-grained cereals which became wheat and barley, if indeed these arose in this region. It is believed that small-grained cereals, such as millet, were grown earlier, and the discovery that the delta lands could be made to produce heavy grains on a large scale was fundamental. It meant that the population could increase because its food-supply was assured, and with increased population, fed with relative ease, organization for defence against fresh invasions became possible.

The earliest-known period shows constant struggles between the cities, in which now a Sumerian and now an Akkadian city gets the upper hand. Naturally enough, the chief records are the inscriptions and votive offerings in which this ruler or that commemorates his victories or his labours in digging canals and reservoirs.

A king of Lagash, in about 2800 B.C., has left inscriptions

which throw not a little light upon local conditions. This king was a law-giver and proudly records that as a result of his labours while "formerly there was slavery, now freedom has been established." The special aim of his laws was to protect the weaker members of the community from the exactions of the priests, who carried on trade on a considerable scale, doubtless because the service of the gods demanded much that was not obtainable locally. The priestly caste is said to have oppressed four different sets of people—the boatmen, presumably the carriers of the trade-goods, the fishermen, the shepherds, and the farmers. Obviously, then, communal life had already attained considerable complexity.

The "freedom" established appears to have been short-lived, for it would seem that in the lifetime of the king Lagash was invaded, and another Sumerian city came to the front. The king was certainly premature in thinking that he had already solved a problem which continues to harass humanity!

But the point of interest for us is simply that even at this early date we have that phenomenon of the growth of independent cities, followed by inter-city conflicts and the dominance now of one and again of another, which is repeated so often in Greek history.

The next important stage, not completed till the time of the great king Hammurapi (about 2123 B.C.) was the unification of Akkad and Sumer into the empire of Babylon, with its centre in what had been Akkad. The process was accomplished in the face of constant inroads, especially of hill-peoples—"dragons of the mountains, enemies of the gods," eager to plunder the rich cities of the plains. Later, again, as already stated, Babylonia fell to Assyria, and the centre of gravity shifted yet further north.

But we are not concerned here with historical detail. The essential facts are that the delta region, given the power of dealing with the flood-water, was one which could produce large amounts of food-material, especially cereals and

dates, as well as flocks and herds ; but that it was never isolated. Apart even from the fact that the hill-folk on the one hand and the desert nomads on the other were always tending to advance upon the cultivated land, from early days trading contacts with surrounding lands were necessary to supplement the resources of the delta.

Again, irrigation was easiest in the south where the water was clearer, so that Sumer seems to have been originally richer than Akkad. But as wealth accumulated and more elaborate irrigation schemes could be carried out the north made greater progress, till Sumer was finally overthrown and absorbed. The advantages of unity throughout the delta were great, for it meant better control of the canals and water-supply. So long, therefore, as there was any strong power, whether its centre was within or outside the delta proper, to keep the canals in order, it remained fertile and prosperous. Even so late as the fifth century of our own era it is described as a forest of verdure from end to end. But when, in the course of the ages, it became a battle-ground for warring peoples, the whole basis of prosperity was destroyed, with little hope of recovery without outside help. In the seventh century of our era the Arabs invaded it and decay began. But it was the Mongol and Tartar invasions of the thirteenth and fourteenth centuries which led to the final ruin of the irrigation system, and turned most of the cultivated fields into wastes and marshes.

It is interesting to note that, in sharp contrast to conditions in the Mediterranean area, there has been no rise to greatness of individual cities after the fall of great empires. Round the shores of the Mediterranean Sea there were, in early days, small city-states comparable to those of Sumer or of Akkad. Rome united the Mediterranean world into a great empire which even overpassed its natural limits. But when Rome fell, small city-states once again arose round the shores of the Mediterranean Sea with a revival of former splendour. But there the

hill-sites are permanent features of the landscape. In Babylonia the historic sites were but areas amid shifting mud and swamps, reclaimed and stabilized by man's ingenuity. Once his restraining hand was removed, the sites themselves were changed beyond all recognition by the work of the streams which he had guided and directed into special channels.

NOTES

The account of Egypt in this chapter is very brief, and should be supplemented by a study of the ordinary text-books. It is interesting also to take Mark Antony's short speech in *Antony and Cleopatra*, Act II. Scene 7, and comment upon the statements made in relation to what has been said in regard to Egyptian agriculture. A very interesting account of the Nile valley, and especially of the Assuan cataract and the modern dam, is given in Cadell "The Development of the Nile Valley, Past and Future," *Scottish Geographical Magazine* (Edinburgh), XIX., 1903.

Alike for Egypt and for the Tigris-Euphrates area Herodotus and the Old Testament are invaluable. Note, for example, the account given in Genesis, Chap. XI., of the migrations of Abraham's family. So much is said in the text of immigration into the delta, that this account of a family group leaving it on account of local troubles is especially interesting. The plain of Shinar = the land of Sumer, and Ur of the Chaldees, where Abraham was born, was in the south not far from Eridu (Fig. 6). The Haran of verse 31 is Harran of p. 86, and it is clear that the family followed what Miss Semple (see below) calls the Piedmont route, where the hills join the plain and some pasture is available, on their way to Canaan and Egypt. The whole story helps to make clear the importance, from early times, of the highway from Babylonia to Egypt, which avoids the desert, and after leaving the Tigris near Mosul clings to the hill-margin and then to the coastal lands.

Among the books and papers which should be consulted for further details in regard to the Tigris-Euphrates trough, mention may be made of: Jastrow, *The Civilization of Babylonia and Assyria* (Lippincott, Philadelphia, 1915); Sykes, *A History of Persia* (Macmillan: London, 1915), especially useful for Elam; Willecocks, "Mesopotamia, Past, Present and Future," *Geographical Journal*, London, Jan. 1910, and *The Irrigation of Mesopotamia* (Cairo, 1905); Semple, "The Ancient Piedmont Route of Northern Mesopotamia," *Geographical Review*, New York, Sep. 1919. All have useful maps. See also the *Cambridge Ancient History*, Vol. I., Egypt and Babylonia to 1580 B.C. (Cambridge: University Press, 1923).

CHAPTER V

SEA-TRADE AND THE FIRST SEA-TRADERS

The Phoenician towns : their origin and position. Motives influencing the choice of sites. The structure and relief of Syria. Importance of the Lebanon area and its characters. Nature of the coast-line. Arvad, Sidon, Tyre and Tripoli as types of Phoenician towns. Details of their sites. The Phoenician contribution to Mediterranean civilization.

IN the last chapter we discussed the growth of Babylonia in the delta of the Euphrates, and laid stress upon three fundamental facts—the large production of food-stuffs, the position on a highway, the local deficiency in much that civilized man needs. We saw that, as a result, at an early stage a priestly trading class arose, which obtained capital by taxing the producers of food (the farmers and fishermen) and raw material, especially wool (the shepherds), as well as the boatmen, and with this capital engaged in commerce on a large scale. Since labour—cheap because food was cheap—raw material, and a wealthy consuming class were all present, it is hardly necessary to add that manufactures soon grew up. Thus upon an early exchange of Babylonian cereals for bulky goods like timber and stone, there would soon be superimposed the kind of trade more familiar to us, where an advanced community sells the products made by its skilled artisans to less developed areas, and buys from them in return such raw material and food-stuffs as it cannot itself produce. This trade, with the

interchange of ideas which trade brings, was one of Babylonia's chief contributions to civilization, and its effects were felt over a very wide area.

We saw next that much at least of Babylonian trade was carried on with the upstream lands of more varied relief and climate, and that the Assyrian towns originated at or near the point where land routes converged upon the Tigris, and where that river became available for downstream traffic. For upstream navigation it seems never to have been useful before the days of steamers, owing to the swiftness of the current; and the problem of getting the transports back to their starting-point was solved in rather an interesting fashion. Boats made of skins on a wooden framework were often used; in that case the boatmen sold the framework with the cargo in Babylon, and loaded the skin-covers, with the return freight, on donkeys for the homeward journey. The process was made easier by the fact that the heavier and less valuable goods came downstream, and the more valuable and less bulky, whether foods like cereals and dates or manufactured goods, went upstream. Ashur, Nimrud and Nineveh then were collecting-stations for goods to be sent down to Babylonia by water, and distributing-centres for those which came up from it by caravan. This meant that the capital with which Assyria started in its turn on a career of conquest was due to the accumulation of middleman's profits. The country held the gate of Babylonian trade, and the object of its people was to grip more and more of the roads which converged upon that gate, and thus have more traffic to tax. The next stage, as we have seen, was the conquest of Babylonia, which threw the whole profit of Babylonian trade and commerce into Assyrian hands.

But, as we have already suggested, the stretch between Nineveh and Eridu was but a section of a great highway which leads from Asia Minor and the Mediterranean Sea to the Persian Gulf and thus to the Indian Ocean. If

great trading-centres could arise at the point where downstream goods were transferred from land to water, it is clear that another favourable position for such centres was on the shores of the Mediterranean, where all goods had necessarily to be transferred from water to land, and conversely. Phoenicia was a collection of such trading-posts, and the first point of interest about them is their position.

We have already (p. 84) spoken briefly of the relatively low (about 5000 ft.) Amanus Range, the Giaour Dagh of many maps, which forms the north-western lip of the Tigris-Euphrates trough, and separates it alike from the Gulf of Alexandretta, the ancient Issus, and from Asia Minor. We have seen (Fig. 5) that this range is notched by the Amanus Gate, or Bogtche Pass (about 3000 ft.), by the Syrian Gate or Beilan Pass (about 2400 ft.), and that the gorge of the Orontes cuts through it at its south-western end. Now the Bogtche Pass, with the Cicilian Gate through the Taurus Mountains further west, which is also traversed by the Baghdad railway, affords an easy route to the heart of Asia Minor; the Beilan Pass one to the shores of the Gulf of Alexandretta. We should then, at first sight, have expected to find early trading-stations developing round the shores of that gulf, at the western side of the Amanus Range. In point of fact, however, the historic cities of Phoenicia—the Land of Palms, Phoenix being the name of the date-palm—were placed much further south, in Middle Syria.

The reason, it would seem, was partly a question of suitable sites for ports; but much more important was the need for avoiding the dangerous proximity of the hill-folk, whether Hittites or Assyrians. For the Amanus Range is continuous with the folded mountains of Asia Minor and Armenia, of which it forms the most southerly element. It trends in a north-east to south-west direction, terminating near the cape Ras el Khanzir, well under 100 miles distant from the end of the long "finger" of Cyprus. The island contains a mountain chain which must once

have been continuous with the Amanus, but is now separated by fracture and the sinking of the intermediate segment. The mouth of the river Orontes may thus be said to mark the southern limit of the mountain country, with its warlike inhabitants. The ancients regarded it, quite naturally, as marking the northern frontier of Syria.

Now the Phoenicians, because of their position as middlemen, were a cautious merchant folk, with no desire to waste their gains in defending themselves against "dragons of the mountains." They knew very well that their future lay upon the sea, but were wise enough to perceive that the attempt to combine maritime ambitions with land conquest would be to court disaster. By preference indeed they chose peninsulas and islands for town sites, as if to emphasize the fact that land conquest did not enter into their scheme.

In the nature of the sites selected, and in the general trend of their policy, the Phoenicians showed several interesting analogies with the mediaeval city-states, of which we shall have something to say later.

But if the Phoenicians, no less than the citizens of the mediaeval city-states, showed great prudence in extending their territories in the area contiguous to their towns, in the region, that is to say, inhabited by potential customers, matters were very different when it came to seaways and their control. The conditions under which sea-voyages were carried on before the use of steam necessitated the holding of relaying stations, where food and water could be obtained, the equivalent of the coaling stations of the present day, though necessarily closer together. In this respect the mediaeval city-states but repeated the policy of Phoenicia, which established "colonies" throughout the Mediterranean and adjacent seas. With all the differences, also, and these are great enough, there is more than a slight analogy with the policy of Britain in both cases. So far as Europe is concerned the policy of this country has always been to avoid continental entanglements so far as

may be, unless the essential seaways are menaced. But not only in the Mediterranean, but also in the wider oceans which now enter into the orbit of trade, outposts are held by means of which free sea communication is assured, trade is easily tapped, and ocean travel facilitated by the certainty of obtaining supplies *en route*.

The next point is to define the exact position of the Phœnician cities, and to do this we must discuss the main features of the structure and relief of Syria (Figs. 7 and 8).

South of the mouth of the Orontes, which, as we have seen, may be taken as marking the southern limit of the region of folded mountain ranges, Syria is structurally a platform, continuous so far as its rocks—mainly limestones—are concerned, with the Syrian desert behind. But, no doubt as a concomitant of the mountain-folding further north, much faulting has occurred, with the slipping down of blocks between parallel faults and the uplifting of marginal areas to form hills. We have already seen that both processes are frequent in the Mediterranean region. Their special significance here is that they produce a varied relief which, combined with the proximity to the sea, increases the average rainfall, and thus the possible variety of products. Historic Syria is a green strip on the seaward margin of the desert, part of the passageway between the ancient lands of Babylonia and Egypt. If not Jerusalem, as the mediæval Christian cartographers thought, at least Tyre, as Reclus points out, was in a very true sense the centre of the early civilized world.

With the faulting of Syria was connected, as so generally happens, the outpouring of volcanic rocks, which give rise to a different type of soil from the prevalent limestones. Further, in contrast to the limestone areas, where the streams tend to disappear underground, the basaltic tracts have a better development of streams, and the rocks themselves sometimes weather to form rich, retentive soil.

A great development of basalt, with extinct volcanic

vents, occurs in the ancient land of Bashan, the present Hauran, which lies east of the Sea of Galilee and the upper Jordan valley, and forms a plateau with an average height of some 2000 feet. It is believed that in early days this was the chief wheat-growing area of Syria, and that it was from it that Solomon got the yearly 2000 measures with which he bought "cedar trees and fir trees according to his desire" from Hiram, king of Tyre.

But the essential feature of the shattered Syrian platform is that from the bend of the Orontes, east of Antioch, in the north, to the Gulf of Akaba in the far south, it is traversed by a great rift valley. This rift, with its assumed continuation in the Red Sea and the lake district of East Africa, forms one of the most peculiar features of the earth's surface, and has been of vast importance in the history of Syria. It originated, as just stated, by the letting down of sections of the earth's crust between parallel lines of fracture, and is thus a ditch with marginal mountain walls. But we must not hastily assume from this brief description, and from the appearance of small-scale maps, that it forms a continuous trough from one end of Syria to the other. The actual conditions are much more complicated.

The trough appearance is most obvious in South Syria, where we may conveniently begin our description. The river Jordan rises in the south-western slopes of the Anti-Lebanon Range, and thereafter runs due south, to pour its water finally into the Dead Sea. Throughout it is flowing in the rift, and, after leaving the little Lake Huleh, is actually below sea-level. The surface of the Dead Sea itself is nearly 1300 feet below the level of the Mediterranean. Beyond its southern end the land rises again. Thus while structurally there is a continuous trough to the Gulf of Akaba, in actual fact there is no flow of water out of the Dead Sea, which forms what is known as a basin of inland drainage.

So much for the ditch in this part of Syria. Now consider the bounding walls. They do not here present the

appearance of definite hill-ranges, except to an observer at the bottom of the ditch. Rather are they rugged up-lands, with familiar Bible names. Thus to the west we have the hill-country of Galilee, separated from the up-lands of Samaria, with those of Judea beyond, by the plain of Esdraelon, which extends south-eastwards from the base of

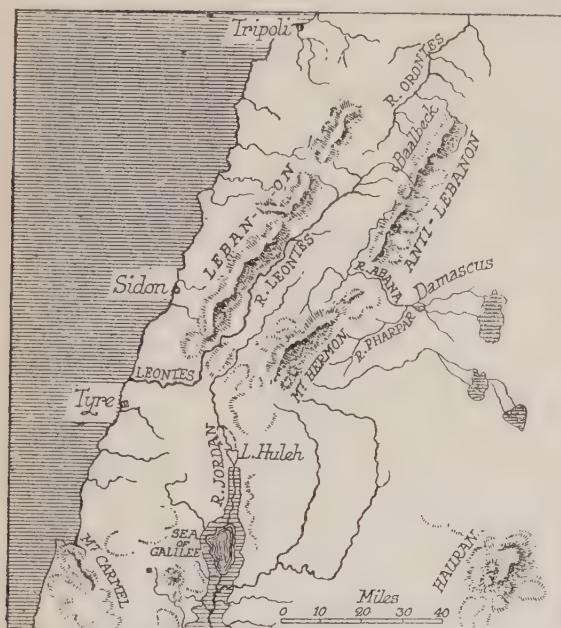


FIG. 7.—PART OF SOUTHERN SYRIA.

Note the Syrian Hollow, or rift valley, lying between Lebanon and Anti-Lebanon, and the remarkable courses of the rivers Leontes and Orontes.

Mount Carmel. To the east lies the land of Bashan, followed successively by the hills of Gilead, Ammon and Moab.

The next section is the Syrian Hollow, lying between the parallel ranges of Lebanon and Anti-Lebanon (Fig. 7). It, like its bounding mountain-ranges, has a north-east to south-west direction, broadly parallel to the coast-line. The south-western part of the hollow contains the

river Leontes or Litany, which arises from the slopes of Anti-Lebanon, a few miles south of the ruins of Baalbeck, and then collects tributaries from both Lebanon and Anti-Lebanon. After watering the south-western part of the Syrian Hollow, it suddenly turns upon itself at a right angle, and cuts its way through the last slopes of Lebanon, in a great gorge, to run practically due west to the sea.

The course of the Orontes, the other great Syrian river, is even more extraordinary (Fig. 8). It rises a few miles north of the headwaters of the Leontes, on the Lebanon side of the Hollow, but runs in a precisely contrary direction, that is north-eastwards. After emerging from the Hollow, in the vicinity of the town of Homs, it has a generally northern direction, until, in the latitude of Antioch, it swings round in a great bend in its turn, and reaches the sea by cutting through the last slopes of the Amanus Range.

From the point where it emerges from the Syrian Hollow, just south of Homs, the Orontes is flowing in the third section of the rift, here ill-defined. Its western wall is formed by the Ansariyeh Range, the ancient Bargylus, rugged but not high, crossed by no good pass. There is no very definite eastern wall.

Summing up, then, the Rift Valley of Syria falls into three well-defined sections. In the south it is a true ditch, a clean cut in the platform, the rugged surface of which remains on either side. Further north the sinking of the central block is less marked than the rising of the margins, so that Lebanon and Anti-Lebanon appear as lofty mountain ranges on either side of a narrow upland. Finally, the significance of the northern section is rather that it causes the Orontes to take an exceedingly roundabout road to the sea than that it forms a marked feature of the surface. It should be noted that from the northern end of the Lebanon Range there arises a short stream, the Nahr-el-Kebir, the Eleutherus of the ancients, which succeeds in cutting its way direct to the sea, between the Lebanon and

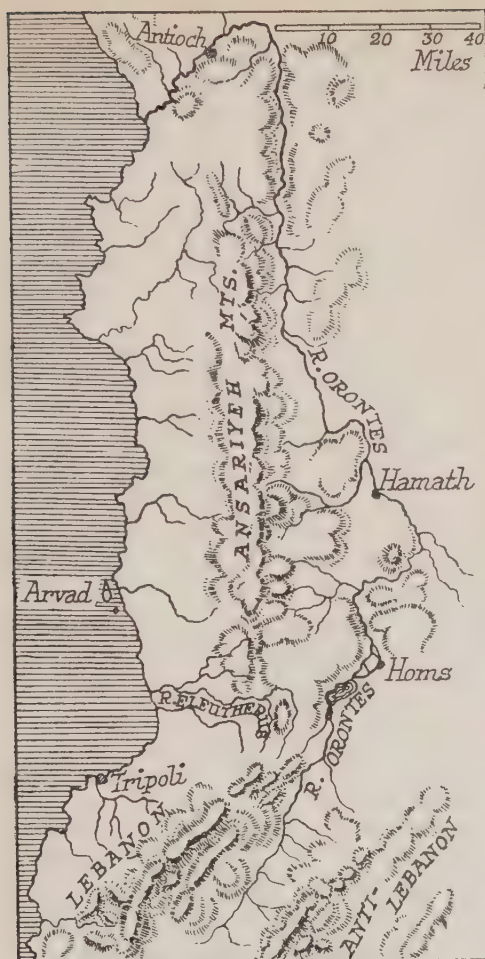


FIG. 8.—PART OF NORTHERN SYRIA.

The relation of Tripoli and Arvad to the Eleutherus gap should be noted. Antioch was not founded till 300 B.C., and was thus much later than the other cities.

Ansariyeh ranges. It thus forms a transverse valley which, with the similarly transverse section of the Leontes further south, defines the limits of the Lebanon Range very sharply.

If the chief facts about the characters of the Rift are clearly visualized, it is easy to see where were the most favourable sites for sea-traders' settlements. The merchants of the Phoenician towns had to make a satisfactory compromise between certain opposing conditions.

They had to have easy access to the Tigris-Euphrates trough as a great market. This factor, acting alone, would have pushed their towns northwards, where the trough comes nearest to the sea.

But they had also to have protection for their caravans from the peoples of the mountain rim, eager to take toll from the users of the piedmont highway. The effect of this in pushing the most important of their towns southwards is easily shown by an example. We have just spoken of the transverse valley between the Ansariyeh Range and Lebanon, made by the river Nahr-el-Kebir. This allows easy access to the interior, for, as we have seen, in this region the rift is ill-defined. Now on the Orontes, north of Homs, was the ancient town of Hamath or Hama, which was at one time a Hittite possession. The valley of the Eleutherus was the "entrance to Hamath," and equally a possible line of exit from it. Had there been Phoenician towns at this gap they would obviously have been exposed to constant risk of raiding from the Hittites of Hamath.

So far then we have arrived at the conclusion that the region north of the mouth of the Nahr-el-Kebir was not likely to offer suitable sites for trading-ports—the risks were too great. But not the whole of the area south of this point was favourable, for the question of easy access to the interior remains. Clearly, south at least of the plain of Esdraelon this was not obtainable.

For look at the railway lines of South Syria to-day. From Jaffa the only, and very bad "port" of a long stretch

of coast, a railway starts light-heartedly for Jerusalem. It crosses the coastal plain, and, if by a somewhat devious route, succeeds in ascending the upland of Judea to that town. It stands on the western edge of the deep rift, and some forty-five miles away, on the platform at the other side of the great ditch, runs the north-to-south Hejaz railway on its way to Medina. Now to the railway engineer the thought of leaving the two lines unconnected must be painful, must leave the sensation of an unfinished job. Yet the task of getting down into the ditch and then out of it again on the other side is one from which he might well shrink. Even then if there had been ports on the coast suitable for early sea-traders, we can hardly conceive of them establishing themselves here, with a great cleft between them and their market, to say nothing of the desert beyond the hills of Moab.

Thus by a method of exclusion we arrive at the fact that the part of Syria most suitable for the sites of towns dependent upon sea-trade is the strip backed by Lebanon, or, more precisely, the area between the transverse valley of the Nahr-el-Kebir and the neighbourhood of Mount Carmel. This suitability is increased first by the characters of the actual coast, and second by those of the Lebanon Range. We shall consider the two points in order.

From Mount Carmel southwards the coast is extraordinarily even and featureless. A large-scale map hints at the cause in marking sand-dunes. This smooth stretch swings south-westwards round to that of Sinai; the Nile delta is beyond; the set of the sea-currents is eastwards along the delta and then northwards up the Syrian coast. One does not need much knowledge of physical geography to combine these facts, and recognize that here the sea carries and deposits sediment. Only near Jaffa does any rock appear; elsewhere the land is being built out into the water. The process means that ports are necessarily absent; the Jews could not become a sea-faring people.

North of Mount Carmel, however, the sea carries less

and less sand ; rocks tend to appear at the water's edge. Against them the waves beat, cutting the softer areas into little bays, and leaving the harder as promontories and islets. As a result fresh supplies of sediment become available. These are deposited in the sheltered areas, forming beaches on which, in the early days, the boats seem to have been drawn up, no harbour in the modern sense being necessary so long as there was protection from storms. Some of the inlets formerly used appear to have been much silted up since. But the fact that this coast was very suitable for Phoenician trade while it does not now possess good harbours is explained chiefly by the difference in the size of the ships used, rather than by any great modification of the coast-line.

Let us look next at the relief of the Lebanon area. Structurally the two ranges of Lebanon and Anti-Lebanon bear to one another the same relation as do the Vosges and the Black Forest on either side of the Rhine Rift ; but the actual geography is very different.

Lebanon forms a continuous limestone ridge, with an average height of 6-8,000 feet, and a maximum of 10,000 feet. The eastward slopes to the Syrian Hollow are steep, but seawards the land descends in richly-cultivated terraces to the coastal plain. This is narrow, and is crossed both by the gorges of the numerous streams, and by rocky ridges jutting out from the main range seawards.

The streams suggest a whole series of causes and effects of much importance in the history of Phoenicia. In the strict sense no part of the Lebanon Range is within the zone of perpetual snow, but the precipitation is considerable on the western side, which faces the rain-bearing winds, and as with Ben Nevis and the Cairngorms in Scotland, patches and streaks of snow linger throughout the year. Further, there are indications, in the presence of moraines, that glaciers occurred in an earlier geological epoch, and these moraines form suitable soil for the famous cedars, now greatly reduced in numbers. Generally, also, the presence

of quasi-permanent snow, combined with the relief rains, is favourable to forest growth.

Again, the rains and the snow feed, as we have seen, many streams, which, owing to their steep courses, have great cutting power. The resultant gorges and ridges make the construction of a satisfactory coast road a problem whose solution has tried the best wits of all the conquerors who have passed this way. Egyptians, Greeks under Alexander, Romans, have all left their mark on the land, but, precisely as in the case of Dalmatia, to which we have compared Phoenicia, the result of the labours of successive military engineers throughout millennia has been only mediocre.

But in both cases the practical commercial mind has perceived in the two sequences—water, therefore rock gorges; water, therefore trees, a simple means of evading the problem by shifting the burden of transport from the land to the sea. And this brings us to the text-book statement that the firs and cedars of Lebanon, no less than the original forests of Dalmatia, made boat-building in both cases possible. In both regions also, granted a defensible site for a township, the coastal traders, beneath their protecting, forested mountain wall, have not a great deal to fear from raiders from the interior, who, by hypothesis, know nothing of navigation or boat-building, and cannot deprive the traders of their prime source of wealth. Such adversaries as Hittites, Babylonians and Egyptians in the one case, and Slavs, Hungarians and Turks in the other, might, on occasion, sack or even destroy particular towns, they could not prevent the rise of others, and had in most cases even after conquest—real or threatened—to be content with a vague suzerainty which took the form of a money payment out of the profits of trade. The sea, that is to say, was not really “unharvested”; rather did it yield a harvest more easily protected from a conqueror than that of the fields.

The parallel range of Anti-Lebanon averages nearly

1000 feet lower than Lebanon, its highest point, Mount Hermon, not greatly exceeding 9000 feet. The great dome of that mountain, snow-capped for most of the year, is separated by a depression from the rest of the range, to which the name Anti-Lebanon is sometimes restricted. On its western slope rises the river Barada, the ancient Abana, which, with a sudden change of direction, swings south-east through the gap, to end finally in desert swamps. But before doing this it, with the Pharpar, the other "river of Damascus," waters the gardens and fruit-groves of that town. Their clear streams contrast markedly with the milky, salt-carrying waters of Jordan, and the contrast justifies Naaman the Syrian's scornful comment.

Beyond Damascus and its fruitful plain lies the desert, but springs along the base of a ridge make possible a route past ruined Palmyra to the Euphrates. Damascus, again, has easy communication with the Syrian Hollow by the Barada gap, and from the Hollow the coast can be reached by a pass (about 4,500 ft.) over the Lebanon Range. This pass lies behind Beirut, and now carries the railway from that town to the Hollow, whence one branch runs northwards to Homs and Aleppo, while another connects with Damascus and is continued to Medina.

It is thus clear why the chief Phoenician ports tended to cluster in the region at the base of the Lebanon Range. Here they had a mountain backing, giving the necessary protection, timber for boat-building, and well-watered slopes on which cultivation could be carried on. The actual coast was well supplied with small harbours suitable for the ships used. The Lebanon pass and the transverse section of the Leontes gave access to the Syrian Hollow and so to the Tigris-Euphrates trough, either by way of the Orontes valley or by Damascus, while avoiding alike too close proximity to the mountain rim and dangerous desert journeys.

Nevertheless, in spite of all these advantages, we find that certain Phoenician cities were placed beyond the

limits of the Lebanon strip, in the less well-protected area backed by the Ansariyeh Range. One of these, Arvad or Aradus, the "refuge," is regarded by some as the exception which proves the rule. In other words the peculiarities of its site show how great were the dangers of attack here.

But before we consider its exact position a word or two may be said as to the Phoenician people. They were Semites, and it seems clear that they arrived on the coast as immigrants, displacing earlier inhabitants. Of their place of origin nothing is definitely known, nor can any precise date be assigned to their earliest settlements. But there were apparently flourishing Phoenician cities by 1600 B.C., and, in view of their achievements in arts and crafts, it would appear that they had been in contact with both Babylonian and Egyptian civilization.

It is believed that Byblus, the modern Jebel, placed about midway between Tripoli and Beirut, was one of the earliest settlements, if not the first. Not only is there a tradition to that effect, but it was to a peculiar degree a sacred city, being associated with the cult of that god whom the Greeks called Adonis, who, as a symbol of the spring renewal of growth, died and was born again each year. Such a god points to a period before trade was the main source of gain. But it is enough for our purpose to look at the four towns of Arvad, Sidon, Tyre and Tripoli, the last a Greek name for a settlement the native name of which is unknown.

Arvad (Fig. 9) was placed on a barren islet, lying about two and a half miles off the coast, and some thirty miles north of Tripoli. It was thus dangerously near the "entrance to Hamath," the Eleutherus gap. There was no water, no soil, no natural harbour; the original area was small, the maximum length being about 800 yards and the maximum breadth about 500 yards. Trade was apparently carried on chiefly with the Hittites, who supplied goods for export and obtained in exchange products from Egypt,

Cyprus and the coasts of Asia Minor. But the characters of the site selected suggest that the Phoenician inhabitants had little confidence in the good intentions of their clientèle ! In point of fact Arvad seems to have been literally a refuge, a magnified "peel tower," such as one finds on the old

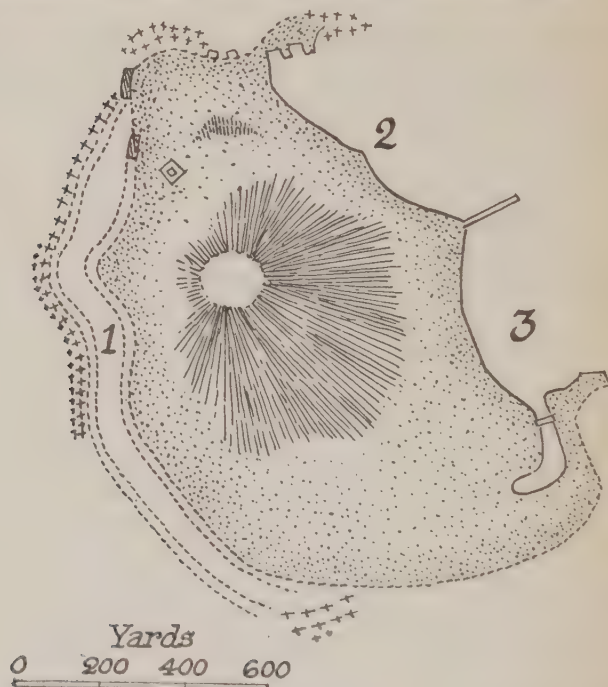


FIG. 9.—THE ISLAND OF ARVAD.

The shaded area represents approximately the original land surface, the dotted part the extension made by joining up the neighbouring rocks and reefs with cement. 1, the western "moat" cut in the rock; 2 and 3, the harbours.

border between England and Scotland. The people of Arvad had on the mainland, lands and settlements, lands which could be cultivated, settlements where markets could be held, arts and crafts carried on. But if their customers suddenly showed a preference for raiding as

against bartering, they could betake themselves to their island fortress and wait for better times.

Much ingenuity was displayed in adapting a somewhat unpromising site to fulfil the required purpose. The first difficulty was the small area. But since the islet itself was but a wave-worn fragment, it was fringed on its exposed sides, that is the north, west and south, by other remnants of an old land surface, in the shape of rocks and reefs. It was thus possible to undo the work of the waves, by filling up the shallow water with squared stones and cement, and thus connecting the isolated rocks to the island. Special precautions had then to be taken against wave action, and the land surface was not only protected by a wall of massive masonry, but on the west, the most exposed side, a moat was cut in the rocks, to break the force of the swell. In connection with the elaboration of these works, it may be mentioned that the Phoenicians had ample opportunity for trading in human flesh, so that slaves would be plentiful.

By whatever means the surface was increased, however, the total area remained small. To lodge the population, therefore, not only were the houses built close together, but "sky-scrapers" were resorted to, a natural device where many persons have to be accommodated in a small space.

Water-supply was the next problem. In the first place, rain-water was stored in tanks and reservoirs. But in the Mediterranean region generally the summer drought makes this a precarious source of supply. The people of Arvad obtained additional amounts in another way at times when access to the mainland was impossible. Off the limestone coasts of the Mediterranean Sea it is very common to find that the water which sinks in through the porous rock in the hills fails to find an exit on land, and bubbles up as a powerful submarine spring. The hydraulic pressure ensures that mixing with the surrounding sea-water does not occur immediately. Such a spring occurs between Arvad and the mainland. A hemisphere of lead was

placed over this spring, thus confining the fresh water, and to the hemisphere a leather pipe was attached. The force of the water ensured its rise through the pipe, which was placed in a cistern contained in a boat moored over the spot. The device, involving as it does observation, ingenuity and fairly advanced technique, helps us to realize the degree of civilization to which the Phoenicians had attained.

The final adaptation of their island to its special purpose was the construction of long breakwaters on the eastern, the sheltered side, to form two artificial havens for their ships.

But the elaboration of the protective and adaptive devices at Arvad not only limited its usefulness, but absorbed energy which could find more profitable outlets. It was obvious that if a site was available which combined natural protection with local supplies of food and water trade could be more easily carried on. It was all very well for the people of Arvad to shut themselves up in their island fortress, and "shoot out their tongues and cry aha ! aha !" to their pursuers ; but this did not take them much further.

Let us look next at Sidon, "the Great," the "mother of Tyre and of Arvad." It was placed on the mainland in the latitude of Damascus, on a small coastal plain. Westwards the land juts out into a small promontory, off which lies an islet. From the islet an interrupted chain of reefs extends north-eastward, enclosing a sheltered roadstead. South of the promontory is another haven, less protected from storms since no enclosing reef is present, but having a beach on which the boats were drawn up. Thus two harbours were present, a northern and southern, which were connected by a channel in the lee of the island.

Sidon was originally a fishing-town, the "fish" being partly the molluscs from which the famous purple dye was obtained. Great banks of shells lie upon the shores nearby, and dyeing, as at Tyre, seems to have been one of the great

industries. When the latter town took the lead in over-seas trade, Sidon seems to have become largely an industrial centre.

Tyre (Fig. 10) had greater advantages of site, but offered certain analogies both to Sidon and to Arvad. It is placed about five miles south of the mouth of the Leontes, and had thus easy access to the Syrian Hollow. Useful as this fact was for trade purposes, it was also a potential menace, for there was an obvious possible line of advance for a conqueror here. The inhabitants adapted themselves to the natural conditions in a fashion which recalls Arvad, with some very marked differences.

Present-day maps show a promontory at the site of Tyre, but this is an artificial feature. Originally the coast, which here forms a fertile plain, had no more than a slight seaward curve. But half a mile offshore lay a belt of islands, of which two reached some size, the others being little more than reefs. There were originally two towns, one on the mainland and one on the ground formed by joining together the two large islands. The mainland town has completely disappeared, and we know that more than one conqueror passed this way. But, till the attack by Alexander the Great in B.C. 332, island Tyre seems to have escaped serious damage; it was probably always more important than its mainland counterpart.



FIG. 10.—ISLAND TYRE

1, the northern and 2, the southern harbours; 3, the causeway constructed by Alexander the Great which converts the original island into a peninsula; 4, the aqueduct which brought drinking-water from the mainland across the original strait.

The ends of the chain of reefs made the construction of two harbours possible. The northern, called the Sidonian, looked towards the town of Sidon, about thirty miles away ; the southern, or Egyptian, was connected with it by a channel. Tyre was very strongly fortified, and as in the case of Arvad, the need for economizing space led to the houses having many storeys. One advantage over Arvad it had, however, in that at some unknown period an adequate water-supply was ensured by the building of a submarine aqueduct, carried out from the mainland beneath the intervening channel (Fig. 10).

But the feeling of security fostered by the advantages of position led to ruin in the long run. The townsfolk defied Alexander the Great, relying upon the surrounding sea, their own element. But that commander conceived the idea of building out a causeway, and so transferring the conflict from the sea to a land surface. As a result he took, sacked and largely destroyed the town, to the accompaniment of frightful slaughter.

The interest of the Triple City (Tripoli) is chiefly in its indication of combination, for trading purposes at least, between Arvad, Sidon and Tyre. As a rule the Phoenician cities seem to have been independent entities, save where one dominant town brought smaller ones within its orbit, or where some form of submission to an overlord became necessary. Strictly speaking there was never a country called Phoenicia, and the Jews of the Old Testament had no common name for the separate cities.

Tripoli was placed on a promontory, with the usual chain of sheltering reefs, south of the mouth of the river Eleutherus, and is described as a "colony" of the three cities named, each of which had its special quarter. The site was admirably chosen, so that the town has arisen again and again after many assaults. It appears to have been a common commercial centre, where goods belonging to the merchants of Arvad, Sidon and Tyre were stored prior to distribution. By the Eleutherus gap access was possible

to the interior—an important point for a market town.

The history of the Phoenician towns is beyond our scope, and we can only add a few words on their influence upon Mediterranean civilization. Their activities were of three main types: they made great advances in manufactures, and by distributing their products over wide areas stimulated other peoples; they were the first bold navigators in Mediterranean waters, and for long succeeded in keeping their methods secret; they established many colonies on the coasts of the Mediterranean Sea.

The basis of their arts and crafts was the abundance and variety of raw material available. Since they were the first great miners and carriers of metals, they soon became expert metallurgists. Tin, so important in early days for mixing with copper to form a hard alloy, was sought for even so far as Britain, and Phoenician bronze seems to have been especially good. Their textiles were renowned throughout the ancient world. The materials, wool, flax, and eventually silk, were all imported, but the value of the finished goods lay in the skilful use of dyes and the beautiful embroideries. Finally, though Pliny's tale that glass was a Phoenician invention is not now credited, there is no doubt that they carried glass-making to a high degree of perfection, partly owing to the fine sand obtained locally.

But so far as their products and achievements as a whole are concerned, it may be said that the Phoenicians showed keen commercial aptitude, rather than genius or high artistic sense. They had at least a certain political resemblance to the Jews of Europe. Dwelling as they did chiefly on barren rocks, they had no "country," no stretch of territory about which their emotions could cling, no memories of communal striving to turn waste places into gardens and fields. Empires might rise and fall; but their markets remained. To a large extent, and for long periods of time, they were, as compared with their neigh-

bours, immune from the common vicissitudes of fortune. For thirteen years—so goes the story—from B.C. 598 to 585, Nebuchadnezzar, the king of the second Babylonian Empire, besieged Tyre. But though the prophet Ezekiel rejoices, not without ferocity, at the thought that the city was to be made desolate, to be covered by great waters, to become a spoil to the nations, his rejoicing seems to have been premature. To island Tyre it would not appear that Nebuchadnezzar did much harm, and some form of compromise was probably arrived at between the combatants in the end. But this Phoenician security, this detachment from the woes of humanity which aroused Ezekiel's ire, meant that the emotional force which other men devote to the service of their country, and which finds its fitting expression in art and literature, among them had its chief outlet in the search for material gain.

So far as navigation is concerned the Phoenicians seem to have been the first to dare to abandon the coast, and, guided by the stars, to launch out into open water. It was this fact which made the western Mediterranean so long their preserve, even after the Greeks had learnt to feel their way from island to island, and from island to coast beyond, in the eastern basin.

Of their colonies, and especially of Carthage, the greatest, we shall have something to say later. Meantime it is sufficient to note that it was their early presence at strategic points in the western Mediterranean which kept the Greeks from many parts of its shores, even after the latter had acquired some skill in navigation. This, again, left to the Romans the task of carrying Mediterranean civilization to much of the west; for the Phoenicians had relatively little permanent influence upon the peoples among whom they dwelt.

NOTES

An edition of the Old Testament, furnished with adequate maps and with an annotated list of place-names, is invaluable for the study of the Phoenician towns. Note especially 1 Kings, chap. v., and Ezekiel, chap. xxvii. Verse 8 is interesting—why were the wise men the pilots? A detailed analysis of this chapter is given in Rawlinson's *History of Phoenicia* (London: Longmans, Green, 1889) which should be consulted. Reclus, *L'Homme et la Terre* (Paris: Librairie Universelle, 1905), vol. ii., is valuable especially for the sketch-maps of the towns. There are good general maps in the *Times Atlas*. Stanford publishes a useful "Map of the Turkish Empire with the Balkan Peninsula and Lower Egypt," 1914, which is of help both for this chapter and the last. Somewhat more detailed is the Royal Geographical Society's map of "Eastern Turkey in Asia, Syria and West Persia," new edition, 1914. The sheets of the 1/1,000,000 International map are also very useful.

CHAPTER VI

ATHENS AND THE GREEK CITY-STATE

The Geography of the Ægean. Minoan Civilization and the Causes of its Collapse. The new Greek World. Problem of the grain-supply ; its influence on the development of the different states. Attica and the Elusinian Mysteries. Site and situation of Athens.

THERE could scarcely be a greater geographical contrast than that between the Ægean area and the Levant, between the home of the Greeks and that of the Phoenicians. South of Mount Carmel, as we have seen, the Syrian coast is virtually harbourless, and even in Middle Syria all man's ingenuity was required to select havens which could be converted into trading centres. The natural disadvantages of the town-sites chosen by the Phoenicians are obvious ; the most that can be said of them is that they were the best available. Further, the difficulty was not only to construct harbours ; all the wisdom of the pilots was necessary to enable the ships to find their way over the open sea, all their skill to avoid the dangers of an unprotected lee shore.

Very different are the conditions in the Ægean area. Both on the eastern and western shores of that sea great bays and inlets run far into the land, bearing fantastic peninsulas on their margins, having in many cases sheltering islands across their seaward openings. The sea itself is sprinkled with islands, sometimes arranged in chains

which define natural routes for timid sailors, elsewhere clustered in groups which render point-to-point sailing possible from Greece to Asia Minor.

Thus a natural seaway leads from the north end of the large island of Euboea past the group of the Northern Sporades to Lemnos and Imbros or Tenedos, and thus to the Hellespont, or again direct from the Sporades to Lesbos and the Asiatic shore. Far to the south the axis of the great island of Crete is continued by Carpathos and Rhodes to the north-east and by smaller islands to the north-west, so that we have a series of stepping stones arranged in an arc of a circle from Greece to south-western Asia Minor. Between these two chains the clustered Cyclades in the central Ægean, with the southern Sporades nearer the Asiatic coast, similarly invite traffic from one shore to the other (Fig. 11).

We have already seen that the Ægean Sea is due to the recent sinking of a part of the earth's crust. The island belts are but fragments of shattered mountain ranges, once continuous from the European to the Asiatic shore. In structure and land-forms, in climate, in natural vegetation, the two coasts are closely similar. If then the Mediterranean area as a whole can be regarded as a natural unit, the conception of unity can be applied with much greater accuracy to the Ægean.

Again, the Mediterranean area as a whole is remarkable not only for its sharply-defined climate and associated vegetation, but for its relative ease of access to regions of different climate and products, with which exchange naturally arises. In this respect also the Ægean may be described as a delicately-finished miniature of the greater area. The northern chain of islands leads directly across the sea from Greece to the Hellespont-Bosporus waterway, and so to the Black Sea, the coastal lands of which yield primarily those products, especially grain, in which Ægean Lands are deficient. Similarly, the southern chain, with Crete as the centre, not only delimits the Ægean area, but

affords a natural stepping-off place to the greater sea : from it there is access to the corn of Egypt, to the products of the Syrian coast and its hinterland ; it offers also a starting-point for an advance to the Western Basin.

For a maritime people, then, life has always been easier round the *Ægean*, the Greek Sea, than on the Syrian shore. And yet, till within the last twenty or thirty years, it seemed as if there was but little connection here between history and geography, as if, that is to say, a geographical interpretation of history was impossible. For the general belief was that no great *Ægean* civilization existed prior to that of Classical Greece, which reached the height of its splendour in the fifth century B.C. If this were so, if at the time of the Trojan war (1194-1184 B.C.) the Greeks were still relatively primitive while the merchants and artisans of Phœnicia had made great advances, then it was natural to assume that it was from the Phœnicians that the Greeks learnt most of the arts of civilization. This suggested a continuous westward and north-westward shift of the main focus, apparently independent of geographical conditions. But successive discoveries in Crete and elsewhere have thrown an entirely new light on the course of events.

We know now that in Crete there was an early civilization, which must have arisen not much later than that of Egypt, and continued throughout long centuries. Called variously Minoan, from Minos, the legendary king of Crete, and Mycœnian from the town of Mycœnæ, in southern Greece, where much excavation has been carried on, this civilization had its first home in Crete, where a great palace has been excavated at Cnossus. From Crete as a centre it spread to various parts of the *Ægean*, and outside it to Cyprus and possibly elsewhere.

This Minoan civilization fell as a result of " barbarian " attacks, perhaps assisted by rivalries within ; for in the *Ægean* area unity has always been exceedingly difficult to achieve.

The barbarians were apparently invaders of Indo-Iranian speech from the grasslands of Asia. The palace

at Cnossus was destroyed sometime about 1350 B.C., when Mycenae on the mainland had become great, and for two or three centuries afterwards there seem to have been constant invasions, with a general relapse into barbarism in the Ægean region, a true Dark Age. In course of time, however, a new and greater civilization arose, with its chief focus at Athens.

For us, however, the essential point at the moment is that we can now fit the Phoenicians into the general scheme.

We have already seen that their cities were characteristically refuges rather than homes, that their culture showed an absence of that flowering in art which we expect from an indigenous civilization. Nor have even their great cities kept that permanent emotional appeal which clings about towns like Athens, Rome, Jerusalem, Constantinople, built for eternity because in each case the choice of the site was a real stroke of genius, was based on an appreciation of unchanging facts.

We may find the explanation in the fact that the Phoenician cities were not the result of an unfettered choice, nor did their merchants work out their own problems from fundamentals. In a world which was being shaken to its foundations by impacts from the lands beyond—for there seem to have been invasions in Egypt and the Tigris-Euphrates trough as well as in the Ægean—they found their opportunity. Minoan Crete had had old relations with Egypt, so that sea-trade must have been already established on an exchange basis. While civilized men elsewhere were striving to keep the invaders out, or scattering before their onslaught, or bowing their heads to the conqueror's yoke, the Phoenicians evaded the great issue, and seized the opportunity to profit by the world disturbance. We are too near a world upheaval ourselves not to realize the hatred which this action would bring upon their heads.

Nor should we fail to remember that if the ageing Minoan civilization came to an abrupt end, the final result of the

incursion of alien folk into the Ægean was the rise of that greater Greek culture which has had such an abiding influence on the world. As it came to its strength it displaced the Phœnician one in the Eastern Basin of the Mediterranean. In the Western Basin the two cultures existed for a time side by side in the island of Sicily, and real rivalry did not begin till Carthage, the "daughter of Tyre," had become great. Between Carthaginian and Greek Sicily there was a long conflict, with fluctuating fortunes. Not till a new Mediterranean power, that of Rome, had arisen in its turn was Carthage overthrown. Thus, by a curious paradox, Phœnician influence lasted longer in the west than in the eastern area which was its original home.

We may put the matter in a different way, and say that the Phœnician towns of Syria prospered so long as chaos reigned in the Ægean. When a fresh position of equilibrium was attained there, when, that is to say, the influence of the geographical conditions began to take effect upon the invaders, so that a fusion between the old and new elements was possible, the fictitious Phœnician prosperity declined. But the Phœnician merchants had accumulated much capital, much experience, had established extensive trade relations, especially in the west. As they were replaced by the Greeks in the east, therefore, they concentrated more and more upon the west, where direct Greek competition was less easy. If Sicily was for a time almost equally divided between the Carthaginians and the Greek colonists, the latter never succeeded in obtaining a hold in the Atlas Lands, where Carthage was supreme. The result was that it was left to the Romans to bring those lands, temporarily and imperfectly, within the Mediterranean orbit, with consequences which remain obvious to this day.

The history of Minoan civilization so far as it has as yet been spelt out, no less than that of ancient Greece, lies outside our scope. But before proceeding to say something

of the area in which Greek culture flowered, a few outstanding facts and approximate dates may be noted.

The period called by archaeologists Early Minoan is believed to have begun during the fourth millennium B.C. By 1600 B.C. there was a great sea-power in Crete, centred at Cnossus, and extending into the Cyclades. Minoan civilization had also penetrated the mainland of Greece,



FIG. 11.—THE EARLY HISTORY OF GREECE

The sites where remains of Minoan Greece have been found are indicated by circles enclosing dots, Cnossus, Mycenae, Iolcus and Troy being named. The continuous arrows indicate the general line of the Dorian invasion, and the broken arrows the directions in which the Aeolians and Ionians migrated to Asia Minor.

both the Peloponnesus and the centre, and was spreading northwards. Some two and a half centuries later Cnossus had fallen, and the focus of Minoan life was at Mycenae in Argolis. By this time, however, the penetration of the mainland was extensive. There were centres in Laconia, in Attica, along the north shore of the Gulf of Corinth, and as far north as Iolcus on the east coast (Fig. 11).

Some time after 1300 B.C. the civilized world, both Minoan and Egyptian, was in the throes of invasion alike from land and sea. The Ægean invaders were known to the later Greeks as Achaeans and Phrygians. They are believed to have been steppe people, perhaps forced out of Asia by drought, and overran the whole of mainland Greece, Crete and part of the western coast of Asia Minor. The Trojan war was a conflict between Achaeans and Phrygians, possibly in part for control of the way to the Black Sea.

The next great event, of which more is definitely known, was the coming of the Dorians, which occurred shortly before 1100 B.C. These invaders seem to have entered Greece proper from the mountain region of Epirus, that is from the area where truly peninsular Greece joins the "continental" part of the greater peninsula. Who they were is not certain; possibly more than one group of people took part in the movement. But the essential point is that the invaders travelled from north to south through Greece. Attica, a peninsula a little off the main line of invasion, seems to have been largely spared. Laconia was in the direct line of advance, and its inhabitants were enslaved, becoming the cultivating helots, while the Dorian invaders became the warrior upper class.

From Laconia the Dorian conquerors followed the island semicircle (p. 119) through Crete and Rhodes to southwestern Asia Minor, where they established themselves on the Carian coast.

Meantime, other movements were also taking place. If we think of the flood of invasion as pouring through the peninsula in a north-to-south direction, to sweep finally eastwards in the far south, leaving Attica and parts of Boeotia on its margin; and bear in mind at the same time the position of the Central Archipelago (p. 119) and of the coast of Asia Minor beyond, it is fairly clear what was likely to happen (Fig. 11). The Ionians of Attica succeeded in defending themselves from the invading flood, but were

compressed within their peninsula, while eastwards lay a way of escape. Thus we find that the surplus population migrated across the Ægean to the coast of Asia Minor, and there established the Ionian towns. It should be noted that the Ægean is narrowest in this region, where, with a favouring wind, not much more than a day's journey is sufficient to make the crossing to the opposite shore. In Ionia the colonists found relative security, and the towns there were of great importance in the growth of Greek civilization. Further, the easy contact between Athens and this opposite shore, and the Attic origin of its colonists, had much to do with the establishment of the Athenian tradition of hospitality to overseas visitors, which was again a favouring factor in the development of Greek culture.

Finally, the Æolians in Boeotia and Thessaly likewise found a way of escape across the Ægean, to the island of Lesbos or the adjacent mainland, where they founded the cities of Æolis, north of Ionia.

Thus when the force of the wave of invasion was spent, a new Ægean world had arisen, with a highly mixed population. In Sparta the Dorians remained dominant, and, since they were few in number as compared with the original population, the state was organized for war throughout its history, and remained in many ways barbarian and aloof from the main current of Greek life.

Again, in the north, the plain of Thessaly, which had been an old centre of civilization, was apparently utterly crushed by the passage of the invaders and ceased to count in Ægean life.

Elsewhere, as things settled down and a new position of equilibrium was attained, a certain amount of fusion took place, and mutual toleration grew up. This seems to have been especially true on the Asiatic shore, where refugees from pre-Dorian Greece and Dorians were alike new-comers in the land, and it was here that the beginnings of Greek culture developed.

The whole period of transition, from about 1100 B.C. to about 750 B.C., is often called the Homeric Age, because the Homeric poems mirror the life of the people. The old Minoan arts and crafts had been largely lost in the period of trouble, and it was to the Phoenicians that the Homeric Greeks looked largely for fine armour and weapons, for bowls and vases, for necklaces and embroidered garments. The life, even of the ruling class, was simple, and showed not a few traces of grassland influence; that is, Mediterranean conditions had not definitely imprinted themselves on social life. Industry and commerce were slow to establish themselves. The influence of the long period of unrest was shown in the hill of refuge, the citadel or acropolis, which formed the centre of the towns. We have already seen that not only were such hill-sites abundant in the Mediterranean, but that the characteristic crops could be grown on their slopes, and the cultivators could readily combine urban and rural life in a fashion impossible elsewhere.

Apart from a hill-site, on which the central citadel could be constructed, and the necessary water-supply, access to grain-producing lands was essential for the rise of a prosperous Greek city-state. There seems little doubt that the early rise of towns on the western shore of Asia Minor was due largely to the fact that wheat grew better there than in Greece. In the Homeric poems barley is much more frequently mentioned than wheat, and Greece in general, and Attica in particular, had only small areas capable of producing the more exacting cereal. This was partly due to the soil, which is frequently poor, but especially to the small and somewhat uncertain rainfall. Athens has only a mean annual fall of about fifteen inches. On the other hand, the Ægean coast of Asia Minor faces the rain-bearing winds, and possesses submerged river valleys which allow these winds to penetrate towards the interior, so that it has a higher mean precipitation. Even so far as sixty miles inland an average of 20-22 inches per annum occurs.

The soils are also better, and though it is true that the best wheat-producing lands lay beyond the limits of the coastal strip occupied by the Greek colonists, yet these could readily obtain supplies.

In Greece, on the other hand, this was much more difficult, and the problem became more and more acute as civilization advanced and a larger proportion of the community came to demand wheat instead of the more easily grown barley. As individual city-states increased in importance, indeed, they exhausted among them all the various possibilities of increasing their grain supplies.



FIG. 12.—THE SOUTHERN PELOPONNESUS AND THE POSITION OF SPARTA

For example, Sparta (Fig. 12), placed on the Eurotas river, had a narrow fertile strip in the valley of that river, which was capable of wheat production, and doubtless formed one of the motives which led the Dorians to settle here. But the rest of Laconia is rugged, not very fertile, and better fitted for barley than for wheat. Westward of Laconia lies Messenia, with a broad fertile plain, that of Macaria, at the head of the Messenian Gulf, well watered, and very suitable for wheat. In the seventh century, after desperate fighting, the whole of Messenia was annexed, and Spartan colonists settled on the new lands. This method of appropriating by force neighbouring grain-lands

was quite commonly practised by the stronger states. Even with the additional lands, however, Sparta was constrained to make a virtue of frugality, for grain was never abundant.

In the seventh century also Sparta sent a colony to Cyrenaica on the north coast of Africa, following in this a policy which was widely practised. Cyrenaica lies due south of the Peloponnesus, and though the land is fertile on the plateau the rainfall is uncertain and always small. The region can never have been very productive, at least so far as grain is concerned. It was one of the disadvantages of Laconia that it faced an empty sea, and that when land was reached productivity was limited. More fortunate were those Greek states so placed that a natural line of expansion was westward, into areas where the rainfall was better, and where considerable tracts of fertile land existed. Thus Chalcis, in Euboea, initiated western colonization, sending settlers to Rhegium in southern Italy, in the area which became Great Greece, and founding the ill-fated town of Naxos (p. 22) in Sicily. Corinth, also, with but little room for expansion at home, founded many important settlements. She occupied the island of Coreyra (Corfu), with the island of Leucas further south and areas on the adjacent mainland. Her colonists also founded Syracuse in Sicily, which was in its turn a mother of colonies. Such colonies, especially those of Sicily and of the south of the Italian peninsula, not only relieved the pressure at home by absorbing the surplus population, but became important suppliers of grain to Greece.

Of all the Greek states Attica had the poorest soil and the most limited grain supply. Despite the superiority of Athenian culture over that of "barbarian" Sparta, Athens, no less than that state, attempted to make up for the natural disadvantages of its lands by appropriating the more fertile territories of its neighbours. But the opportunities for conquest were very limited. The inadequate home supply of grain, however, if it was a per-

petual worry to Athenian statesmen, had much to do with the development of the state—and that for several reasons. It made it essential that she should be strong at sea, for most of her grain had to be brought from a distance. The need for buying the grain abroad again stimulated home arts and crafts. For if the Black Sea lands, with which Athens traded extensively, would take oil and wine, and the jars in which these were stored, in return for grain and fish, Sicily at least can have had no need for any of the three. It is true that Attica had silver mines, with the products of which food could be bought; but part of the significance of these mines, no less than of the quarries which furnished building stone, must have been in stimulating the artistic impulse, so that her artisans produced goods eagerly sought after by less developed peoples.

Once again, since Athens was not a great colonizing power, she did not run the same risk of losing her most energetic citizens. The fact of the wide range of her overseas trade, also, with the relations which trade brings, must have been a perpetual stimulus to her people, brought in this way into contact with all the known world. The next point, therefore, is to note, in fuller detail than we have yet attempted, the situation of Athens, and the features of the surrounding country of Attica (Fig. 13).

We have already (p. 25) emphasized the fact that the Mediterranean area as a whole owes its characters to three main processes, (1) folding, (2) fracturing, and (3) differential movement of the broken parts. In this, as in other respects, Greece is eminently typical of the larger area. The highly complex form of the land is the result of variation both in the direction of the folding and of the lines of fracture.

The folds take two main directions, one from about N.N.W. to S.S.E., and the other roughly from west to east. The Pindus mountains in North Greece, the Taygetus (Fig. 12) in the south of the Peloponnesus, are examples of the first series, the Cithaeron and Parnes Mountains of Attica of

the second. The position of these ranges makes it clear that the longitudinal ranges occur in western Greece and the transverse ones in the east, and it is thus obvious that Greece turns its back on the Ionian Sea and faces the Ægean. For the western ranges form a barrier, less marked, it is true than the Dinaric Alps further north, which separate the central Balkan Peninsula from the Adriatic; but still definite enough.



FIG. 13.—ATTICA AND THE POSITION OF ATHENS

This eastern outlook is accentuated by the nature of the fracture lines. When the earth block which once occupied the present Ægean, of which the Cyclades are the splintered fragments, was shattered under earth stresses, as a pane of glass might be shivered by a blow, cracks appeared in the adjacent parts of the earth's crust. Some of these cracks were more or less parallel to the transverse fold-lines; others took independent directions, so that the gulfs which run into the land, and give to it its dissected form, seem to have little relation to the structure lines.

Since the Ægean was the great centre of fracturing and collapse, these inlets are more abundant on the eastern than on the western side of Greece. Thus the former is richer in natural harbours, in islands, and in sheltered inlets than the latter, and access to the interior of the land is much easier. We have here a second reason why Greece has always looked towards the rising sun.

But before we can make the advantage of Attica clear, we have to bear some other facts in mind. As we have already hinted, in speaking of grain supplies, Greece as a whole is a poor, largely barren, mountainous land. The complexity alike of the folding and of the fractures divides it up into a number of isolated basins, with difficult communication the one with the other. Limestone rocks largely predominate, and the fertile areas, nearly always small, are those in which the limestones are covered by more recent beds, or by river alluvium. As we have already suggested, by a curious paradox, the possession of a fair amount of ploughland seemed as a rule rather a drawback than an advantage to a state. We have already spoken of Sparta in this connection, but Boeotia is an even better example. It had far better lands than adjacent Attica, lands which produced splendid wheat, but its contribution to Greek life was small. Its fertile lands meant that the depressed areas which on two sides of Attica are flooded by the sea, in Boeotia are filled up by soft beds. It had therefore poor access to the sea, its centre, Thebes, being an inland town. The Athenians regarded the Boeotians with the utmost scorn as at once greedy and stupid. A contemptuous description of them by a comic poet as a people who "spoke just as pots might be expected to speak if they had a voice, telling how much they could hold," has often been quoted. The point of the quip was the fact that a Greek community which could satisfy its material needs in its necessarily restricted home area could not make much advance. Poor lands, combined with easy access to the sea, meant a constant stimulus.

Movement on land was difficult, and at best the range of travel was strictly limited; but the sea made contact with all the known world possible.

At the same time we must not exaggerate the deficiency of Attica in arable land. Had there been no fields which rewarded the labours of the husbandman with a rich harvest, neither Athenian art nor Athenian philosophy could have reached the level which it did.

We have seen that the Phoenician towns resembled many of the industrial cities of to-day in that they were primarily places where wealth could be accumulated, markets and counting-houses rather than homes. In such cases the pageant of nature arouses no human response, the emotions centred round the seed-corn which, in the fulness of time, will yield yet another golden harvest are unstimulated, nor is man stirred to deeper thoughts by the perpetually renewed mystery of life and death, by the analogy between his own brief allotted span and the swift fading of the spring glory. The part which the Eleusinian Mysteries, the worship of the Corn Goddess Demeter, played in Athenian life can hardly be overestimated, and the material basis of the cult was that the small corn-producing plain of Eleusis, lying on the coast west of Athens, contained the richest and best-watered lands of the state.

The details of the rites of the Mysteries pointed back to very early days, and were largely magical in origin; were intended, that is to say, to assist the natural processes upon which a new harvest depended. Thus grain in the Mediterranean region is sown in autumn, and the autumn rains are essential for germination. In Attica, with its small and somewhat precarious rainfall, there was always the risk of crop failure if the rains did not come at the right time, or were too light. Thus it was a part of the Mysteries that vessels containing water were emptied upon the ground, as a hint to the Unknown Powers of what was required of them! Again, a midnight search for lost Persephone was made by initiates carrying torches, and a

sacred drama was performed in a brilliantly-lighted hall, in which it would seem that a mystic marriage took place, followed by the birth of a divine child. The torches doubtless symbolized the sunshine without which next year's corn could not ripen, and the blaze of light was at once an encouragement to the sinking noontide sun, and a magical aid to him in his task of re-ascending the heavens. The analogy between human marriage and the birth of children, and the processes by which the plant yields seed for a new harvest is one which seems to have struck many primitive peoples, and many of them believe that a mimic representation of the one process stimulates the other.

But for the initiates at least there was something more than all this. Thus Isocrates says: "Demeter who came to our country bestowed on us two priceless gifts: the cultivation of the fruits of the earth, which compelled us to leave the savage state, and the ceremony which brings to the initiated the sweetest consolation at death and the hope of eternity." This means that for the more thoughtful Greeks the ritual was transmuted into something deeper and greater, led to a fuller appreciation of the value of the individual life, and of the continuity of the communal life.

We can therefore well understand how it was that even in the days when the bread of the Athenians came from many areas, often from lands which neither knew nor worshipped the mother-goddess and her Divine Child, the Mysteries yet kept their sanctity and their hold. Some parts of the ritual lent themselves readily to parody and mockery. Thus each initiate purified himself and a pig in the sea, and the pig was afterwards sacrificed, possibly with the notion that its blood fertilized the ground for the new crop, a quite common conception. Later the purification acquired a moral significance, the initiates had "clean hands," became freed from evil. But though even to believers some of the details must have appeared ridiculous, the mere suspicion of having mocked at the ritual was sufficient to wreck the career of Alcibiades. For its

defenders included both those who still thought that without it the rains would not fall nor the corn sprout and grow to harvest, and those who satisfied their higher needs by a mystic interpretation of each rite.

Again, it was an appreciation of the emotional value of agriculture and its associated cult which led so many of the Greek poets to look back to a mythical Golden Age, when trade and industry were not, and men lived in close communion with nature ; when God guarded the harvest, and the husbandman, violet-crowned, had but to sit by the well and watch the grapes ripen and the figs grow soft. The idealisation of rural life comes easiest to those who have been freed from its arduous labours, and the Athenian arable lands, we may repeat, were not extensive enough to maintain a civilized community. But they were, none the less, of great significance.

We have thus indicated two main facts about Attica—that it was for the most part a mountainous, barren land ; but had narrow, fertile plains near the coasts. A somewhat more detailed study is necessary to make clear how Athens was able to become strong on the sea, and to acquire wide trade relations.

In considering the geographical factors which help to account for the rise of a great town, we have to distinguish between its advantages of site and of situation. By site we mean both the ground on which the actual buildings stand, and the area in the immediate neighbourhood. Situation introduces the larger conception of the possible relations between the local area and the surrounding lands. The meaning which we attach to the words “ surrounding lands ” again depend upon a number of factors, of which the means of communication at the period under discussion constitutes one.

Now it is generally true—though there are well-marked exceptions, of which Madrid is one and St. Petersburg another—that advantages of site determine the first origin of a town, and advantages of situation its growth into a

great city. Since also, as we have already suggested, the question of the size and limits of the area with which a town can link itself closely depends upon causes not wholly geographical, what are at one time advantages of situation may at another period cease to function as such. During the "Turkish night" Athens sank to the condition of a miserable village; once freed it developed into a modern town with a rapidity recalling the growth of American townships. But it was in part at least the original advantages of site which led to the new Athens growing up close beside the ruins of the old, rather than at the port of Piræus.

The main features of the site can be briefly put. The peninsula of Attica contains four small plains, areas in which the underlying barren rocks have a sufficient covering of vegetable mould to allow of cultivation being carried on. Of these four the narrow plain of Marathon lies on the coast to the north-east; south-east is the hill-enclosed plain of Mesogaea. We have already spoken of the plain of Eleusis to the south-west. That of Athens lies centrally between the last two, and slopes gently to the calm waters of the Saronic Gulf (Gulf of Ægina). It is drained by the perennial if small Cephissus river, which takes its origin in the Parnes Mountains to the north, and by the smaller Ilissus from Mt. Hymettus on the east. Both streams water the gardens and fruit-groves of the plain. But the special feature is that the limestones, which must once have been widespread in the plain, have been subjected to age-long weathering, so that their softer parts have disappeared, and the harder portions remain as isolated, cliff-bound hills and hillocks. The most famous of these is that of the Acropolis, which rises more than five hundred feet above the general surface. It affords an admirable site for a citadel, a stronghold in which the cultivators of the plain could find safety for themselves, their families, their meagre flocks and essential tools and implements, while still being within easy reach of their fruit-groves and fields. Here

was the first settlement, and from it the town spread to adjacent hills and towards the lower ground. In the very early days the Acropolis bore the king's residence, the king symbolizing the military might which protected the settlement. In a later and more spiritual period it became the home of the gods, of the non-material forces on which safety ultimately depends. The Parthenon on the Acropolis was the characteristically Greek expression of the emotion which the "Sweet Singer of Israel" expressed many times in words. "I will say of the Lord He is my refuge and my fortress : my God ; in him will I trust."

Another great advantage of site which Athens possessed was that the limestones of the plains overlie schists. Now rainwater percolates through limestone, dissolving it as it travels, but is stopped by the impermeable schists. Thus springs gush out at the junction of the two kinds of rock. This ensured a constant supply of drinking water, a very important point in this arid land. These springs are not, however, sufficiently copious to serve the needs of a large town, and their importance was most marked in the days when the settlement was small.

Among the minor advantages of site we should not omit to notice that the town is outside the limits of the Mediterranean earthquake belt. The frequency and disastrous nature of earthquake shocks at such an historic site as that of Ragusa helps us to understand the importance of this fact.

In regard to the wider relations of Athens, the first point to notice is the easy access to the sea. The distance from the Saronic Gulf is indeed so short, and the connection between Athens, whether ancient or modern, and the harbour of Piræus so close, that it might be thought we should regard this ease of access as one of the advantages of site. In point of fact, however, there is no reason to think that proximity to sheltered havens had any influence on the selection of the site of Athens. It was but one of many similar Greek settlements, all placed on hills

surrounded by lands capable of bearing the characteristic Mediterranean crops of corn, wine and oil. On the other hand, there is no doubt that the fact that Athens proved to be within easy reach of important sea-ways was one of the great causes of its soon surpassing the others in importance.

The relation to land-routes again does not account for the importance of Athens, and that for several reasons. The highly complex relief, the dissected coast-line of Greece as a whole made movement on land slow and difficult in almost any direction as compared with the ease of sea-journeys. The general similarity in climate and products of the different plains and basins deprived the Greeks of one great motive for striving to overcome the natural difficulties of land communication; for there was but little to exchange. Perhaps most important of all, the commodity of which, as we have seen, the Greek communities had the greatest need—grain—could not be easily transported overland. The result was that the land-forms, whether of Attica apart from the plain of Athens or of the rest of Greece, were chiefly important in that they were so arranged as to give Athens the necessary protection from its foes, both Greek and alien.

In connection with Athens' access to the sea there are two points to be considered, the actual harbours and the relation to sea-routes. We may take the latter and larger question first.

We have already dwelt upon the natural advantages of eastern as compared with western Greece. Of the gulfs and inlets of the former the Saronic Gulf possesses certain unique advantages. It is peculiarly calm and sheltered, and is separated from the Gulf of Corinth by only a narrow belt of land. The north-eastern part of this belt, the isthmus of Megara, contains the mountain of Geraneia, rising to a height of nearly 4500 feet above sea-level. This mountain-range prevents the whole belt from acting, as one would at first sight expect it to act, as a natural

passage-way from the Peloponnesus into Central Greece ; Mt. Geraneia was thus part of the natural ramparts of Athens. But the south-western part of the connecting tract forms the low (150-230 feet) and narrow (under 4 miles) Isthmus of Corinth. Only in modern times has this isthmus been cut through by a canal, but the ancient Greeks used to drag boats across over a prepared track, in preference to making the stormy passage round the southern point of the Peloponnesus. It is indeed a curious anomaly that, despite the cutting of the canal, the Gulf of Corinth is less of a thoroughfare for boats and goods now than it was in the days when it was blocked by the isthmus barrier. But then for modern ships the passage round the Peloponnesus offers no terrors.

Because the isthmus was so little of an obstacle to through traffic, whether the boats were dragged across or the cargo merely transhipped, ancient Athens may be said to have occupied a position near an important east-to-west line of traffic from the Ægean to the Ionian Sea, and thus from the eastern to the western Mediterranean.

Apart from the isthmus area the other boundaries of the broad Saronic Gulf are the parallel peninsulas of Argolis and Attica. Its shores are nowhere high, and the water is easily reached ; the numerous islands sprinkled over its surface, also, form an invitation to the navigator. The gulf thus forms the natural centre of the maritime life of Greece, and looks, across its own islands, to the Cyclades and to Crete.

One other point is worth note. North-east of Attica, and again parallel to it in direction, lies the south-eastern extremity of the great island of Euboea. It is separated from Attica by a wide gulf, which however narrows north-westwards to the channel of Euripus. The narrows of Euripus give the extremity of Euboea all the appearance of a third peninsula, Attica being thus the central member of a group of three parallel land-masses projecting south-eastwards. On a small scale, then, Attica offers a certain

rough analogy to the position of Italy as the central member of the three great Mediterranean peninsulas. Just as Rome owed the possibility of expansion in all directions to her median position in the Mediterranean world, so Athens was in direct contact with the three elements of the Greek world, the insular, peninsular and continental.

Of the harbours of Athens it is only necessary to say that apparently the first to be used was the Phaleron, a flat beach on which boats could be drawn up. But classical Athens had two feet planted on the shore, for the deeper harbour of Piraeus was also used. The present peninsula of Piraeus appears to have been originally an island, the intervening space having been silted up by an arm of the Cephissus river. The neck of land so formed defined a safe harbour, which Pericles connected to Athens by the two "Long Walls," some five miles in length. In this way city and harbour became a single unit, and the importance of the sea to the town was clearly indicated.

NOTES

In reading this chapter a good classical atlas is essential, and should be studied with the help of relief maps. W. R. Shepherd's *Historical Atlas* (London: Univ. of London Press, 1922) has some very useful plates of ancient Greece. For Minoan civilization and its relation to that of Egypt, vol. i. of the *Cambridge Ancient History* (Cambridge: University Press, 1923) should be consulted in a library. In reading older books it is important to remember how recent the discoveries in Crete and elsewhere are. The account of the Eleusinian Mysteries in the text is largely based upon C. Delisle Burns, *Greek Ideals: A Study of Greek Social Life* (London: Bell and Sons, 1919). In most geography books the treatment of Greece is somewhat perfunctory. Those who can read German will find a little book called *Griechisches Mittelmeergebiet*, by Otto Maull (Breslau: Ferdinand Hirst, 1922), very useful. See also, J. L. Myres, *The Dawn of History* (Home Univ. Library), and Miss Semple, "The Ancient Mediterranean Grain Trade," *Annals of Association of American Geographers*, 1921.

CHAPTER VII

THE RISE OF ROME

The Geography of Italy and the Position of Rome. The Political Situation before the Roman Advance—the Carthaginians, Greeks and Etruscans. The defeat of the Etruscans and its causes. The Struggle with Carthage. The Atlas Lands and their Significance.

IN the last chapter we pointed out some of the conditions which enabled Athens, selected as the type and symbol of Greek culture, to become great. In this we have to indicate how it was that Rome came to displace Athens as the centre of the world—of a world which had become larger and more fully organized, if not necessarily more civilized. The expansion of Rome depended upon a combination of historical and geographical causes. For while it was the place-conditions which made the spread of her rule possible, it was the political situation during the period of growth which determined its direction.

In Chapter I. we discussed some of the main points in regard to the setting of the mother city. But there we were considering the subject in connection with the broad structural features of the western basin of the Mediterranean Sea. Since Rome is an inland town, not a sea-port, and the Empire was a great land-power, it is necessary here to examine the position, relations and relief of Italy in so far as these bear upon the main problems of this chapter.

Italy is the central member of the group of three peninsulas which project southwards from Continental Europe into the Mediterranean Sea. As we have already suggested, there is reason to believe that the two basins of that sea were once completely separated from one another, and even to-day the gap between Sicily and Tunisia is only about 100 miles wide. But the fact that the Alps form a great curve to the north, and that within them, separated by the North Italian Plains, lie the Apennines, has prevented the peninsula from being historically, what it is structurally, a link between Continental Europe and the Atlas Lands. Again, because the Alps are broadest and loftiest to the north of the Plains, and thin out at the eastern and western extremities of the curve, the peninsula was not, in early days, a direct link between Central Europe and the Mediterranean, as we might suppose from its position. It was not until the peoples beyond the Alps had made great advances that it became worth while to overcome the natural difficulties, and establish regular trade routes over the mountains. Thus the original advantage of position which Italy possessed was that its coast-lines gave access to both the basins of the Mediterranean. The broken land-bridge to Africa, the broad connection with Central Europe, had no real significance.

Though the shape of the peninsula is very different from that of the Balkan one, we can recognize the same three elements: the Continental, or broad connection with the mainland; the Peninsular, here narrow and uniform as regards its coast-lines; the Insular, the islands being fewer but larger than those of Greece.

Continental Italy is largely due to the fact that a great depression at the foot of the Alps was elevated and filled up with the waste brought down by streams from the Alps, and to a lesser extent from the Apennines. In its climate, especially the relative severity of the winter and the occurrence of summer rain, as well as in the uniformity of the relief, it is extra-Mediterranean. Historically also it has

been outside the Mediterranean area proper in that the Roman advance into it was of the nature of a reaction, resulting from a previous action by trans-Alpine peoples. For while the Alps rise steeply from the Plains, and present there a formidable barrier to an advance into Continental Europe, on the hither side the slopes are gentler and easier to negotiate.

Further, to the peoples of the interior of Europe there was a motive for advance which was lacking to the peninsular folk. The southern foothills of the Alps, as every traveller to Italy knows, have a far milder climate, a more luxuriant growth of vegetation, than have the Plains themselves. From the summit of the numerous passes a new world, sunnier and richer than anything to the north, discloses itself. But an advance across the Apennines from peninsular Italy brings the traveller to a climate colder in winter, damper in summer than that which he has left ; to a region in which the olive will not grow, which is open and unprotected, without the hills on which Mediterranean man loves to place his towns ; to one also which required strenuous, long-continued effort before it could be made suitable for the large-scale cultivation of cereals so characteristic to-day. It is easy then to understand that Rome advanced here because she was forced to block the path of invaders, not because she desired the territory for its own sake.

Peninsular Italy, save for the great Gulf of Taranto to the south, with its curious bounding promontories, is characterized by its simple form, and almost unvarying width. The Apennines run throughout its length, and form the main relief feature. Closer observation of a relief-map will show that in the region of Tuscany they form almost a semi-circle, and here the peninsula is widest. Here also occur the longest rivers, especially the Arno and Tiber, and these, with their tributaries and the smaller streams, divide the surface up into a series of compartments, hill-margined, forming what are called intermont basins.

In this western part of the peninsula, also, are traces of volcanic action, which increases in intensity from north to south. Thus while only a trained eye can perceive the remains of volcanoes in Tuscany, the crater-lakes and such land-forms as the Alban Hills near Rome are clearer indications, and still further south we have the active cone of Vesuvius. Though the Campagna of Rome forms an exception, it is a general rule that regions which are floored with volcanic rocks in this part of Italy are very fertile; thus we get another hint of the advantages of this section of the peninsula.

Still further south there is another surface-feature which has had much historical importance. Any good atlas map will show that in Calabria, the toe of Italy, there are two mountain masses, the Sila Mts., and Aspromonte (the "rough mountain"). Neither reaches quite 6500 feet, so that they are far from being the highest mountains of Italy, but both are remarkably rugged, and are plateaus rather than true mountains like the Apennines. The rugged appearance is due to the presence of old and hard rocks, such as granites and gneisses, rocks, it will be remembered, which also occur in Corsica and Sardinia (p. 28). Both indeed are fragments of the old land which foundered beneath the sea when the western basin of the Mediterranean was formed. Their historical importance is twofold. In the first place their forests were for long valuable both to Greek colonists and to the later Romans for boat-building. Just because they were densely forested, and too high and rugged for cultivation they served as refuges, for the original population when the Greeks colonized the shores, and later for outlaws who became bandits. But the real significance lies in the fact that they formed a barrier between the Greek colonies on the two shores of Calabria. Thus there was never more than a narrow coastal fringe of Greek civilization here, and the Roman advance was easier than if there had been a solid block of Greek territory.

The existence of the Gulf of Taranto, with the long peninsulas of Apulia and Calabria, means that, despite its general narrowness, peninsular Italy has three extensive coast-lines, facing respectively the Adriatic, Ionian and Tyrrhenian Seas. Since also the Strait of Messina is but a narrow rift, the east coast of Sicily may be said to be structurally, as it has been historically, a continuation of the Ionian shore of the peninsula. Similarly, the north coast of the island may be regarded as a prolongation, with a change of direction, of its Tyrrhenian coast. The history of Greek Syracuse, which faces the Ionian Sea, and of Carthaginian, and later Arab, Palermo, is of importance in this connection.

Of the three shores of peninsular Italy the Adriatic one has always been of least importance. Throughout much of its length this coast is remarkably uniform. There are few ports, the Apennines approach the sea so closely that access to the interior is difficult, and because of the mountain backing on the opposite shore transverse traffic has never been important. The Adriatic became in post-Roman times an important longitudinal seaway, leading from the Mediterranean Sea proper to an area where the Alps could be easily crossed, but that longitudinal traffic used the Dalmatian rather than the Italian shore when it was necessary to seek shelter from storms, or to obtain fresh supplies of food and water.

South of the promontory which bears Mt. Gargano, however, conditions are somewhat different. The coastal plain is wider, so that access to and from the interior is less difficult. Havens are more frequent, and the narrowing of the southern end of the Adriatic Sea coincides with a change in the character of the Balkan coast. Thus the position of the old Roman colony of Brundisium, the modern Brindisi, is important as marking one of the stepping-off places for an advance to the east.

The Ionian coast has some good harbours, and the actual coastal strip is productive. But it faces the least

important side of Greece, and so far as rainfall is concerned is the least favoured part of Italy ; for it turns its back to the rain-bearing winds.

The Tyrrhenian coast is far more important than the other two. There are many bays and promontories, affording numerous small harbours. Owing to the direct exposure to the rain-bearing winds the rainfall is good, and the rocks, and thus the soils, are very varied. Thus as contrasted with Greece, which looks east, peninsular Italy looks to the south-west. Its largest rivers drain to the Tyrrhenian Sea. Except to the extreme north and to the south beyond the Gulf of Salerno there is here a coastal plain which makes access to the interior easy, and that interior contains fertile plains and valleys, protected but not isolated. Communication by land is less difficult than in the case of Greece, though the length of the coast-line, and the presence of the great islands, result in the sea retaining its value as a highway.

As regards these islands little need be added to what has been already said in Chapter I., beyond noting that Sicily which, in contrast to Corsica and Sardinia, contains a prolongation of the Apennines, is fertile and productive. The undulating interior is well adapted for the production of corn and beans, while the coastal hills afford sunny slopes on which vines and olives flourish. Under both Greeks and Romans stock-rearing was also important.

To this general account of the main points in regard to the geography of Italy we need only add a few words about the position of Rome, before proceeding to look at the political situation at the moment when advance began.

Rome is placed on a group of small hills near the Tiber, below the entrance of the tributaries of that river. Ostia, its port, was not good, and had to be reconstructed more than once owing to shifting currents and silting-up in the delta region ; but it still formed a sufficient exit seawards in early days. The Campagna round the city seems to have been less unhealthy and deserted in early days than

it has since become, while the hills beyond, especially the Alban Hills, are remarkably fertile, and capable of bearing a variety of crops. The great aqueducts, which are still one of the most striking features of the Campagna, show how important were the surrounding hills in ensuring an adequate supply of pure drinking water. Finally, the central position in the peninsula, combined with the way in which the Tiber and its tributaries open out routes, was of course a great advantage.

According to tradition Rome was founded in 753 B.C., some fifty years after Carthage, though we know that its site was inhabited long before. The Roman advance began in the fourth century before our era, and we may conveniently start our historical survey by glancing at the general political situation in about 500 B.C., long before it began (Fig. 14).

The essential point is that at that period three different sets of people, all of whom had attained a considerable degree of advancement, were present in the Western Mediterranean. These were the Carthaginians, the Greek colonists, and the Etruscans.

Of the general position of Carthage we have already said something. In more detail we may note that it stood upon a promontory near the modern town of Tunis, at a point where the African coast undergoes a marked change of direction. Close to the site is the Wady Mejerda, one of the few rivers of any size in the Atlas Lands. Its valley is now utilized by a railway, and always formed a natural route to the interior. The city thus at once commanded the main seaway of the Mediterranean and routes into the interior of Africa. Both are facts of great importance. For the spread of the Carthaginians outwards from the city as centre was determined by the double need of making sure of their control of the sea and of tapping the land areas which yielded the commodities in which they traded. It is essential to remember in this connection that, like the later Arabs of the Eastern Mediter-

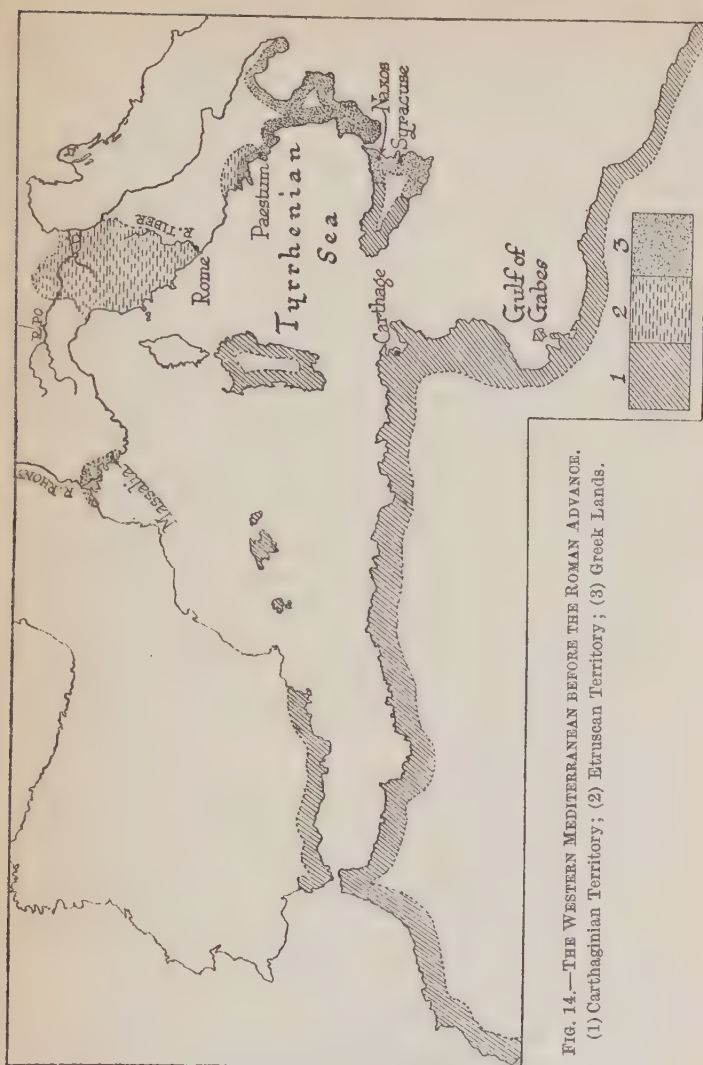


FIG. 14.—THE WESTERN MEDITERRANEAN BEFORE THE ROMAN ADVANCE.
 (1) Carthaginian Territory; (2) Etruscan Territory; (3) Greek Lands.

ranean, they were not concerned with the production but only with the collection of these commodities. They had no desire first to conquer and then to proceed to the laborious process of organizing distant territories, with the object of making these yield new products, or larger amounts of those already present. To obtain supplies of the goods in which they traded it was rarely necessary for them to hold more than a coastal strip upon which land-routes converged, and they were generally unwilling to face prolonged and desperate conflicts with other peoples, unless these threatened their supremacy on the sea.

These facts explain what at first sight seem their very peculiar relations with Sicily. Syracuse was founded after Carthage, and the Carthaginians made apparently no effort to prevent Greek settlement on the east coast. Further, though there was almost constant warfare between Carthage and Greek Sicily, this was not incompatible with occasional alliances and with trade relations. The basis of the struggle was the fact that it was essential for Carthage to hold western Sicily, in order to keep the seaway open; the willingness to allow Syracuse to prosper was due to the other fact that there was nothing to be gained by an advance against Greek opposition. Thus Sicily came to be divided into two parts: a Carthaginian west, and an eastern section which was Greek round the coast, and largely left to native peoples in the interior.

Arguing along the same lines it is easy to explain the range of Carthaginian rule outside Sicily. The interior of Africa yielded much-prized luxuries; the northern coast up to and beyond the Strait of Gibraltar at once gave access to that interior and was the basis of sea-power. In consequence a strip along the shore from the Gulf of Sidra to about the position of the present town of Agadir, was continuously Carthaginian. On the shores of the Gulf of Sidra and of that of Gabes there were many trading stations, to which caravan routes led from the interior, and by these routes and those further west such commodities as gold,

ivory, slaves, and precious stones were brought to the coastal emporia. Slaves then and for a prolonged period afterwards were of great importance, for they supplied the necessary power in a world without steam-driven machines. The Atlas Lands also yielded minerals, as important to Carthaginian as to the earlier Phoenician traders. Possibly the domesticated elephants, which caused so much fear to the Romans, were likewise brought from the interior of Africa. Some authorities, however, think that they were brought from far-distant India, for the African elephant is not easy to domesticate.

The minerals of the Iberian peninsula, again, combined with the need for controlling the exit from the Mediterranean, brought the Carthaginians to southern Spain. The Balearic islands were held because they formed useful relaying stations, and Sardinia for its minerals. Corsica is also mineralized, and a Greek attempt to colonize it was stopped by the Carthaginians, acting in combination with the Etruscans. The Carthaginians had also trading-stations on the south coast of France, though here Greek colonies (*e.g.* Marseilles) were important.

This account makes it fairly clear that Rome, as she became conscious of her power, looked out upon a Carthaginian lake.

Let us turn next to the Greek colonists. We have spoken of the presence of their cities on the Ionian shores of peninsular and insular Italy, an area which faces eastward. But the western shore of Calabria is connected with its eastern one by the Strait of Messina, and Greek civilization spread northwards from Reggio (Rhegium), in the strait, to Cumae in the fertile district near Naples.

But both statements of this kind and the appearance of a historical map are apt to give rise to a wrong impression, to suggest a continuity which did not in point of fact exist. There was in reality a string of cities rather than a belt of Greek culture, and the cities were often enemies the one of the other. For example, Sybaris, an important

city on the Gulf of Taranto, was totally destroyed by the citizens of a neighbouring town, and a river turned over its site. Freeman, in his *History of Sicily* tends to dramatize the island story, and represent it as a conflict between two great antagonists, the Carthaginians, representing the forces of evil, and the Greeks, idealized as the bringers of "sweetness and light." But when Dionysius of Syracuse rased Naxos to the ground, massacred and enslaved most of its inhabitants, and drove the remainder to wander homeless over the hills, he was not only acting like a pure barbarian, but was showing that when such internecine conflicts could take place, it is folly to speak of the Greeks as a unit. Neither against the Carthaginians, save in rare cases, nor against the Romans could the Greek towns put up a combined resistance. In essence this means that the Greek mode of life, based on isolated, rival city-states, was not suited to the conditions in the west, where the fertile areas were larger, and less definitely cut off the one from the other than in Greece.

At the same time we must not overlook the importance of the Greek colonists as the instructors of the Romans in all the arts of life. Even to-day, when Greek and Roman buildings alike are mere ruins, the contrast between what the Greeks did and what the Romans could do even at the height of their development is great enough. It must have been staggering at the time when the Romans were but feeling their way to power. Two examples may serve to emphasize the point.

The present-day traveller to Naples, after visiting the sights of the immediate neighbourhood, and obtaining at Pompeii a glimpse of the Roman Empire in one of its less attractive aspects, usually makes the longer excursion to the Greek Temples at Paestum. Paestum was originally a Greek colony, founded about 600 B.C., and was one of the sites which early fell to Roman forces, a Roman colony being planted here in 273 B.C. As a dwelling-place of modern man Paestum can scarcely be said to exist. So

fever-stricken was the site till relatively a short time ago, that it was commonly believed that even a night's sojourn would prove fatal. There are very few Roman remains, the most obvious being the indications of an amphitheatre, that characteristically Roman structure, devoted to the most brutal of displays. But within a short distance of the modern railway station, in an open space, deserted, treeless and thickly grass-grown, stand three of the most beautiful Greek temples outside Athens. The finest, the so-called Temple of Neptune, dates from the fifth century B.C., the best period of Greek art, and despite the ravages of time is still perfect enough to serve as a type of the achievements of Greece.

Again, the hill-town of Taormina, on the east coast of Sicily, contains the ruins of a splendid Greek theatre, the stage of which is in a fairly good state of preservation. Very little examination shows that in addition to the massive stonework of the Greeks more prosaic Roman bricks are also present, for the theatre was remodelled by the Roman conquerors. But the motive of the reconstruction was purely utilitarian, the desire to increase the size and provide accommodation for a greater variety of entertainments; that it could be attempted was proof that the Greek love of pure beauty was lacking.

We may say then that while on the one hand the Greek colonists could not maintain themselves on Italian soil as against the Roman advance, and could indeed offer little effective opposition to that advance, yet they had much to teach their conquerors.

We have still to consider the third element in the pre-Roman west—the Etruscans. They originally occupied Tuscany (Etruria), where their lands shared many of the advantages of position which the country round Rome possessed, with the drawback that the relief, especially the arrangement of the hills, divided them into a series of compartments, making unity difficult to obtain. There were a number of sites, some occupied later by important

mediaeval cities, all favourable to settlement ; but none had outstanding advantages over the others. Politically, therefore, they formed a loose confederation of cities, an intermediate condition between the separate city-states of the Greeks, and the larger unit which was yet to be. At the period which we are considering they had extended their territories over a considerable part of the mainland of Italy. Thus northwards they had advanced across the river Po, and held a part of the central plains, as well as the area round the delta. Southwards they were suzerains of Latium, and held also lands in the Campania, where Capua was head of a league of cities.

The Etruscans carried on a considerable amount of sea-trade, and in this connection it is interesting to note that their lands included the city of Pisa, which became one of the important trading republics of the Middle Ages. Just as such mediaeval trading towns as Amalfi and Salerno found it prudent to keep on good terms with the Arabs of Sicily, centred at Palermo, so the Etruscans allied themselves with the Carthaginians, who, it will be remembered, were firmly established in western Sicily. The Etruscan advance into the Campania had brought them into conflict with the Greek cities of South Italy, and this was another motive for combination with Carthage, as an enemy of the Greeks.

On land the Etruscans showed very remarkable skill as engineers. Thus they drained coastal marshes, controlled rivers, and prevented the spreading of flood-waters over their fields. The areas which they occupied were as a result much healthier than they became in later times, and their productivity must have been considerable. The presence of metals in Tuscany, and the access to Elba, Corsica and Sardinia (p. 149) account for the development of metallurgy, for which the Etruscans were noted.

Thus the net result of our survey of the political map at the period before Rome started on her career of conquest is to show that seawards she faced Carthage, and all that

Carthage meant in the matter of sea-power. Landwards she had the Etruscans both to the north and to the south, and beyond the Etruscans of the Campania lay the Greek cities of the mainland and of eastern Sicily. We have already seen that the Greek cities had little political if much social importance, so that the essential points are that landwards Rome could not advance without overthrowing the Etruscans, and seawards Carthage blocked the way.

To appreciate fully the causes which led, after a prolonged struggle, to the final defeat of the Etruscans, we have to note that they committed two cardinal political errors, which, if fundamentally due to the general looseness of the political organization, itself the result of geographical causes, none the less brought disaster. In the first place they advanced into the northern plains without establishing themselves firmly in the peninsula as a preliminary—an error Rome was careful not to repeat. Second, the southern advance was not into contiguous territories. The Campanian cities, which were of the nature of colonies, were surrounded by enemies on all sides, for they had against them not only the Greek cities, but the peoples of the interior. The latter overthrew them in the fifth century, and thus weakened the homeland.

The dangers of the northern advance were amply shown in the fourth century. For the Gauls swarmed across the Alps, founded Cisalpine Gaul, and advanced even to the town of Rome itself. Rome, however, gained greatly in the long run from this advance, for the strength of Etruria was fatally sapped by the loss of her trans-Appennine lands, and by the devastation of Tuscany by the barbarian hordes. She was unable, as the result of the weakening of the centre, to carry on warfare on two fronts, and Rome was already advancing in the south of Etruria at the time when the Gauls were ravaging the Plains.

We need not follow in detail the process of consolidation within the peninsula, which was slow but steady. Its importance lies in the fact that before the deadly struggle

with Carthage began Rome had an extensive and well-organized base in Italy which stood her in good stead. In other words, Rome very early became something more than the name-city; but Carthage, essentially a trading-city, had no extensive area immediately round the town upon which to draw for supplies and recruits. Thus one power was growing strong on land before she made her bid for sea-power: the other was strong only on the sea.

The struggle between them had two main starting-points, arising naturally from the geographical conditions. In the first place Carthage was full of contempt for the new republic, struggling for rule in the Italian peninsula; it must have seemed to her but one of the semi-barbarian communities which were harassing the two civilized peoples, the Greeks and the Etruscans. She excluded Rome from the trade with Africa, which yielded most of the luxuries of civilization, and, in some ways even more serious, from that with Spain and Sardinia, the nearest sources of metals, and thus of munitions of war. Without free access to these areas Rome could not grow.

Second, as we have repeatedly emphasized, western Sicily was essential to Carthage. But the Strait of Messina is only two and a half miles wide at its northern end, and the history of eastern Sicily had been closely linked with that of southern Italy. The Roman advance led inevitably to Sicily; her methods within the peninsula made it clear that she would not be content to limit herself to Greek Sicily; thus there was bound to be a fight for the island.

The struggle between Rome and the Etruscans went on for several centuries; but this was because it was necessary for the former to consolidate her gains before the next step was taken. That between Rome and Carthage lasted for little over a century, from the outbreak of the First Punic war in 264 B.C. to the destruction of Carthage in 146: it was one in which the entire strength of both combatants had to be put forth; for Rome it was all or nothing.

The First Punic war gave Rome Sicily. But the Carthaginians made up for its loss by advancing in Spain up to the Ebro. This at once gave them a larger recruiting ground for their armies, and, as events were shortly to prove, was a threat to the Roman rear. For Hannibal's wonderful advance through south France and across the Alps and Apennines, into the heart of Italy, during the Second Punic war, showed the Romans that the mountain barrier to the north was no real protection against a determined foe. The war ended with the defeat of Carthage, and was followed by a Roman advance into Spain, where the south and east coasts were occupied as a precaution against a possible new attack on the part of Carthage. Sardinia and Corsica also became Roman.

The Third Punic war made Rome mistress of the seas, and thereafter expansion both by land and along the seaboard went on rapidly. With some relatively unimportant exceptions the limits of expansion had been reached by the end of the first century of our era.

Of the frontier towards Europe we shall speak in the next chapter; for it is closely related to the question of the lines of barbarian advance which led to the fall of the western empire. In regard to the other frontiers, it is important to note that by this time the whole of the Mediterranean Sea, east and west, was a Roman lake. In addition to the three European peninsulas, and the great islands of the west, Asia Minor was Roman, and a band of organized territory had been run along the eastern and southern coasts. Thus Syria, Egypt and the Atlas Lands, as well as the desert fringe between the western side of the Nile delta and the Gulf of Gabes, were all included in the empire.

The mode of advance by land was everywhere the same. Great roads were constructed, with stations at regular, fixed intervals, and colonies were planted in the lands as they were conquered. But, and it is a fact of great importance, wonderful as was the Roman achievement in the

way of road-building, these highways were instruments of domination, a means of facilitating the movements of troops, not, or only to a quite minor extent, trade routes. The world had still to wait long before bulky goods could be transported any considerable distance over landways. The bearing of this fact requires a little consideration.

The commodity of which the centre of empire had greatest need, and of which it required the largest quantities, was corn. Italy as a whole had far more ploughland than Greece, so that at first sight it might seem as if the need for external grain supplies would be less. But the Roman conquests meant the withdrawal of the home cultivators from their plots as conscripts, and meant also that the armies required large supplies of food. War was the chief industry of the Romans, and it led, as it always does, to a demoralization which diminished home production of grain. Although there were considerable areas within Roman Europe—such as Gaul, and the parts of the Danubian plains included within the empire—which were grain-producing, the difficulty of transport made these supplies of little importance save locally. The grain for the centre had to be sea-borne.

Egypt was, of course, one source of supply, but within both Sicily and the Atlas Lands were areas which, with the extensive use of slave labour, could produce a large surplus of wheat, at no very great distance from the sea-board, whence it was easily exported to Rome. In Sicily, a land with a tradition of civilization already old before the Romans came, the latter was largely despoilers, the governors robbing the island of many of its treasures and oppressing its inhabitants. But in the Atlas Lands, where Carthaginian rule had left very little impression, save round the city itself, they appear in a much more favourable light. In Roman times these lands seem to have attained a productivity which was subsequently lost for long centuries, until, in the latter part of last century, the French began to take up in Algeria the task which Roman hands had laid down.

In illustration we may look for a moment at one or two Roman sites in Algeria. On the coast, in a little bay a few miles west of the town of Algiers, lies the insignificant modern village of Tipaza. The village itself consists now of a handful of houses, mostly inhabited by French colonists engaged in the wine industry. All along the shore stretches a dense belt of maquis (p. 45) and rough pasturage. This belt is occupied by pastoral Berbers, living in rude hovels or even in tents. The Berbers are believed to be the original inhabitants of the land, long antedating the Arab invaders of Roman times, and when one hears to-day the goatherds playing on reed pipes in the shade of the bushes, one is listening to a sound that the Roman legionaries and colonists must often have heard.

For signs of Roman occupation lie over the whole hillside, and on this shore Rome represented civilization; no Greek colonists here first taught man how to live well, no Greek buildings rise among the ruins. We find remains of Roman waterworks, Roman baths, fresh and salt, Roman law courts, Roman cemeteries, even Roman Christian churches, for Tipaza was not founded till the beginning of our own era. It was the chief port of Roman Algeria, and from it the grain of the interior was exported to Rome.

In Algeria the great relief-feature is the presence of two sets of fold-lines, earth-wrinkles, of which one set gives rise to the Tell Atlas or coastal chain, and the other to the Sahara Atlas. Between the two ranges is the plateau belt, a region of varying productivity, because of varying rainfall. The rainfall varies not only from season to season, but also from place to place, the eastern part, which is in a somewhat higher latitude, having more rain than the western. Sétif, a modern French town on the site of an old Roman one, is the centre of the wheat area to-day as it was in Roman times.

But if the wheat-producing plateau area lies behind the Tell Atlas, behind the Saharan one stretches the desert,

which supports a small settled population in the oases, and one of pastoral nomads on its scanty pasturage. Gaps in the Saharan Atlas give access to the plateau, and, if the drought be specially severe, so that the streams, which usually flow from the mountains for a certain distance into the desert before sinking into the sand, dry up or diminish, the pasture dwindles also, and the nomads pass through the gaps to find food for their flocks in the better-watered lands to the north. Near one of these gaps—El Kantara, the gate of the desert—is the French garrison town of Batna. A few miles from Batna are the ruins of the Roman town of Lambessa, placed there to guard the gate, just as Batna was founded for the same reason. Rome became increasingly dependent on the corn of Algeria; but it was only obtainable if nomads from the desert beyond could be prevented from ravaging the fields.

Nor is this all. The native Berbers, of whom we have already spoken, to a large extent at least evaded Roman rule by betaking themselves to the fastnesses of the mountains, whither the Romans did not think it worth while to follow them; for the hill-country yielded but little. But in their hills the mountaineers were a constant menace to the Romans, as they were for long a thorn in the side of the French. Some miles from Lambessa, on the slopes of the Aures Mountains, a part of the Saharan Atlas, stand the ruins of the great Roman town of Timgad. It was a civil rather than a purely military town like Lambessa, and seems to have been founded with the hope—a vain one—of taming the hill-folk by a process of peaceful penetration. The hill Berbers seem to have pillaged Timgad more than once, and in the long run destroyed it, though this was after the Vandal occupation of North Africa.

If in itself but a very minor incident in the history of Rome, this yet sheds light on some of the problems which the empire had to face. The Atlas Lands were of much economic importance as a source of food for Rome. Though the difficulties of subduing the native population and

preventing the entrance of invaders into the settled lands were great, yet they could have been overcome if the strength of the empire had been devoted to the task. Serious military problems presented themselves, however, on many fronts, and that of the Atlas Lands did not seem the most important. We know, indeed, that legions were sent to Algeria as a punishment for a display of cowardice or incapacity elsewhere. But, apart altogether from the question of the wheat-supply, the strategic position of these areas was such that their loss meant a serious menace to sea-power, gave a base from which raiding could be carried on. Thus we can realize the nemesis which followed speedily on the Roman expansion. Once Carthage was disposed of it was rapid and apparently easy. But it led the Roman armies into areas which they had not strength to hold, and yet could not afford to lose without fatally weakening the centre.

NOTES

The early history of Sicily is very fully discussed in Freeman's *History of Sicily*, and the main facts in regard to the expansion of Rome and the struggle with Carthage will be found in the ordinary text-books and books of reference. Alex. Graham's *Roman Africa* should be consulted, and there are a number of modern books on Algeria and its ruins.

CHAPTER VIII

DECLINE OF ROME: ITS CAUSES AND CONSEQUENCES

Roman Expansion in Europe in its geographical and historical bearings. The meaning of the Rhine-Danube Frontier. The Goths and the Collapse in the West. The Coming of the Arabs.

AT the end of the last chapter we hinted at some of the reasons why the Roman advance brought with it the seeds of decay. But the problem of the Atlas Lands, as already said, was a minor one. It did not become really serious till the coming of the Arabs in the seventh and eighth centuries, and before that happened many changes had taken place in Europe. It was from the European side, indeed, that the greatest menace came.

But before considering the problems involved in the frontier towards Europe, we must emphasize once again that the Roman civilization was essentially Mediterranean, owing its unity chiefly to control of the sea, and its strength to the possibility of obtaining supplies (including manpower) from areas which could be tapped from the seaboard. Thus it was necessary to hold that seaboard at all costs, even those parts of it which were not in themselves productive; for these might become haunts of pirates menacing the control of the seaway.

Till the Arab advance, however, the control of the eastern and southern shores was, relatively at least, a simple problem. Beyond the more or less fertile coastal strip

in both cases the desert formed a natural frontier-zone. This remains true even if, as we have already seen, the width of the fertile belt in the Atlas Lands, a width associated both with the position in latitude and with the presence of mountains, gave rise to minor difficulties, owing to the way in which the indigenous peoples could evade Roman rule. For both the latitude (see p. 26) and the presence of mountain ranges—themselves once continuous at either end with the Sierra Nevada and the Sicilian Apennines—mean that, geographically speaking, Africa in this region pushes its way into Europe. Till the Arab Conquest, indeed, the Atlas Lands were historically a part of Europe, action and reaction between them and Spain being constant. The problem of these Lands was therefore—in so far as access to them from the west was concerned—part of the general European problem.

The essence of that problem was to find a frontier which, for the peoples of Continental Europe, blocked all easy access, both to peninsular Italy and to the other parts of the northern seaboard, as well as to Spain and thus to the western shore and the Atlas Lands.

We have already seen that, so far as peninsular Italy is concerned, neither Alps nor Apennines formed a real barrier to invading hosts. First the Gauls and then the Carthaginians under Hannibal proved this without a doubt. To what has been already said as to the geographical causes of their insufficiency we may add a word or two in regard to the Alpine passes. These, which are numerous, owe their origin to the great glaciers of the Ice Age, followed by increased stream-erosion as the ice melted. In the summer season at least they can be crossed without difficulty, and the lowering of the mountain crest in the case of the more important, such as the Simplon, St. Gothard, Great and Little St. Bernard, is such that the zone of summer pasturage extends to the summit of the pass, which is often wide and relatively level, the severe slopes being generally not at the top, but in the river gorges below.

These summit pastures must, from very early days, have been utilized by herdsmen seeking feeding-grounds for their flocks when the heat of summer scorched the herbage in the lower regions. There was a sense then in which the mountains were rather a link between the peoples dwelling on either side than a barrier between them. Tracks of a sort must always have existed, and a determined invader could find local guides.

It was inevitable then that Rome should find aggression here the best defence, and seek to hold the whole of the mighty Alpine chain. In the centre area she swept over the mountains and down the hither slopes, as far as the valley of the Upper Danube. Beyond this lies the forested and complicated hill country of mid-Europe, cold and bleak, the home of the outer barbarians.

Let us turn next to the west. Here historical and geographical conditions alike invited an advance. Hannibal's march had proved that movement by land from Spain was feasible if difficult; the existence of Greek colonies near the mouth of the Rhone showed that the Mediterranean mode of life, based on the characteristic crops of corn, vine and olive, could be practised there; the presence of Carthaginian trading-stations indicated that the interior yielded valuable products. Here not only was aggression the best defence, but there was the possibility of the direct gain of valuable lands.

Geographically also we have to note that though the coast-road past Genoa is difficult, it is not impossible, and there are in addition mountain passes, one of which was used by Hannibal, which lead towards the Lower Rhone valley from the North Italian Plains. From the shores of the Mediterranean Sea, again, there are two easy ways into France (p. 27), and large parts of that country are productive, while the climate is sunny and much warmer in winter than the heart of Europe. It was natural, then, that Roman power should not only extend westwards and then south-westwards into Spain, but also north-westwards

to the oceanic margin of Europe. Even then the narrow Strait of Dover invited a further advance, until the limit of the good lands was reached, whether at Antonine's wall across the narrowest part of Scotland, or at Hadrian's from the Tyne mouth to the Solway Firth.

But if, to the north-west, geography seemed to set a natural limit, the question how far it was wise to turn eastwards from the Rhine mouths was a more difficult one to answer. Julius Caesar pushed the Germanic peoples beyond the Rhine, and a later general advanced to the Elbe. But in the early days of our own era three legions of Roman soldiers were annihilated in this region, and a withdrawal was afterwards made to the Rhine. It is commonly stated that this incident made so much impression upon the Emperor Augustus that he recorded his own convictions as to the value of the Rhine frontier in his testament, and that document then became binding upon his successors. But this seems rather too simplified a version of history, and we shall return in a moment to the significance of the Rhine frontier, noting meantime merely the fact of its existence.

The next point to consider is the natural limit of the advance eastwards from the plains of North Italy. Round the head of the Adriatic movement is easy, and beyond it, though the Alpine wall remains, yet it is thinned, and access to the Save valley is relatively easy. Once reached the valley of that river commands all the natural lines of access to the Balkan peninsula from the north, till, beyond the confluence with the Danube, the Morava valley leads to the very heart of the peninsula, and beyond it the Vardar opens a way to the Ægean. Again, the Lower Danube practically continues the line of the Save, and if it be followed past the Iron Gates there is access to the shores of the Black Sea, and so, if by a devious route, to the Ægean again. More than this, from the Save valley there is no difficulty in reaching the practically parallel valley of the Drave, and from Save to Drave and Drave to Middle

Danube stretch wide plains, to which the great curve of the Danube makes a natural limit.

Thus we arrive at a general conception of the Rhine-Danube frontier (Fig. 15), a recognizable, easily-traced limit, capable of fortification. Within the line Roman law and justice reigned; Roman roads were constructed and the native peoples acquired a knowledge of the meaning of Mediterranean civilization. Outside of it were the barbarians, the peoples without sufficient capital, or military strength, or tradition to ensure political or economic stability.

The frontier had three main weak points. There was first the re-entrant in the Black Forest region, where the line was first drawn from the headwaters of the Danube to the Rhine near Schaffhausen. This was peculiarly dangerous because it pointed towards that natural opening, now called the Gap of Belfort, or Gate of Burgundy, which lies between the Vosges Mountains and the north-eastern end of the Jura, and leads to the heart of France. This re-entrant was afterwards filled up by the establishment of the Agri Decumates (see Fig. 15), that is, a fortified line was run across from the Rhine to the Danube which cut off a roughly triangular area, and straightened out the angle.

The second weak point was the great salient of the Danube, near the present site of Buda-Pest, and the third was the region round the mouths of the Danube. Trajan's Dacian campaigns (A.D. 101-7) were an attempt to make for security in the latter area, and led to the establishment of Roman Dacia, the equivalent of modern Rumania. The province, as we shall see directly, failed to accomplish the protective function for which it was designed.

So far, however, we have looked at the Rhine-Danube frontier from the Roman standpoint, and we cannot appreciate its weaknesses fully without changing our point of view, and looking towards Italy and the Mediterranean from the other, or continental, side.

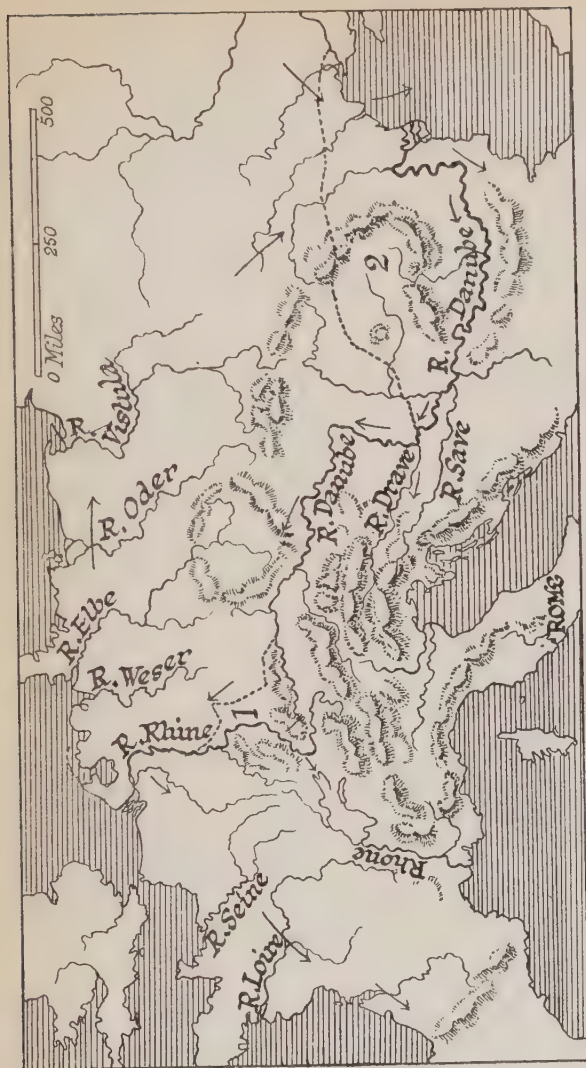


FIG. 15.—CENTRAL EUROPE, SHOWING THE ROMAN FRONTIER, AND THE MAIN LINES OF MIGRATION.

The dotted lines show the temporary extensions beyond the Rhine-Danube frontier, (1) Agri Decumates, (2) Dacia. The arrows indicate the directions in which some of the chief historic movements occurred, and their relation to the outstanding relief features. For detailed explanation, see text.

Modern geographers have largely emancipated themselves from the hypnotic effect of terms like Europe and Asia, which are an inheritance from peoples whose knowledge of the world's surface was confined to a comparatively small area. Thus we no longer think of the two continents as separate entities of markedly different characters. We know that Europe as a whole is but a peninsula of Asia, and that, within the limits of the smaller continent, there is a distinction between east and west which is a repetition of the larger relations. Thus Russia is "Asiatic," while western Europe only is truly "European" in shape, in climate and in relief.

A Polish geographer, Nalkowski, has laid stress upon what he describes as the "transitional" nature of Poland. He regards it as belonging neither to the east nor to the west, but as forming a transition, and therefore a link, between the two. But the basis of his argument was political rather than geographical. If we look at a relief map of Europe it becomes clear that not Poland alone—however the natural boundaries of that state be defined—but the whole North German Plain, that is, the region between the hills of Central Europe and the sea, is an area of transition. So far as relief goes Russia offers little obstacle to free movement in all directions, and this Russian character is continued right along the south shore of the Baltic Sea, and beyond to Elbe and Rhine, whence passage into France is easy. Beyond again it is possible, if with greater difficulty, to force a way into Spain, and from Spain to cross to the Atlas Lands. The Rhine frontier was intended to block this natural highway of migrating peoples, and it showed that the Roman generals had a very clear conception of the relief conditions here and of their consequences.

Where they failed—though their failure was ultimately of benefit to Europe and thus to the world—was in not perceiving that there was another, roughly parallel highway, which they did not make adequate efforts to block. But

their failure was not due to military incapacity, but to the fact that they had no adequate knowledge of the relief conditions in eastern Europe and on the Asiatic margin.

Modern maps show the actual conditions quite clearly. The great Asiatic plains are continuous, through what we now call the Caspian Gate, the gap between the south end of the Ural Mountains and the Caspian Sea, with the quite similar plains which lie along the north shore of the Black Sea. Along this route both migrating peoples, and also migrating mammals like the rats, have entered Europe without difficulty, in mockery of the supposed division between two continental areas.

At the western end of the Black Sea two possibilities present themselves, whether to migrants coming from Asia, or to those coming from the north through Russia (Fig. 15). They may continue to skirt the shore, and, by following the plains round the Danube delta, and then crossing the Balkan Mountains, find their way into the Balkan peninsula. On the other hand they may ascend the valley of the Danube, and then, once past the defile at the Iron Gates, they find themselves in an area of vast plains, where movement seems possible in all directions. If they cling to the main river as a guide they are led, by a winding route, right into the heart of Europe. Past the gap in the hills at Vienna the river valley leads them into the hill-country, whence they can reach and cross the Rhine, or turn north to the coastal plain.

Nor is this all. The Save and the Drave alike continue the main direction of the Lower Danube, and migrants, instead of swinging round in the direction of the main stream, may continue westwards, and thus break through into Italy without great difficulty.

In its broadest and most generalized form, then, we may put the sequence of events which led to the fall of the western Roman Empire as follows. The great generals dammed the Germanic peoples back behind the Rhine frontier. The result was that the human tide was forced

to flow eastwards, along the North German Plain. That plain widens to the east until it merges in the greater plain of Russia, and as pressure of population increased movement took place in the southward direction, towards the Black Sea. Thence it could be continued up the Danube valley, which meant in the long run a return to the starting-point behind the Rhine, a complete circuit of Central Europe. Or pressure could be exerted on the Balkan peninsula, whether directly by land or indirectly by the crossing of the Black Sea, with a possibility of reaching the *Ægean*. Or an advance could be made from the Danubian plains to the head of the Adriatic and so to Continental Italy. The Roman problem was to find a means of strengthening the weak points of their line without withdrawing forces from other regions. For if we go back to our analogy of a great human flood, we can say that pressure exerted at any given point was propagated through the mass and resulted in forward movement at some other. A push at the Rhine meant pressure on the Lower Danube.

If Europe had been really separated from Asia by some definite barrier a position of equilibrium might possibly have been attained. But every now and again great waves of invaders advanced from the Asiatic plains, and exerted pressure upon the peoples of Continental Europe, leading to a new strain upon the Roman line. Against this strain, which shifted so far as the area of incidence was concerned, but was constant in total effect, the dam of the Roman legions could not stand. It broke now at one point and now at another, until there came a time when reconstruction was no longer possible.

Without attempting to summarize even the main historical events, we may give a series of illustrations to make clear the effects of the geographical conditions as just outlined.

The foundation of Roman Dacia has been mentioned above. Like post-war Rumania it included the great

bastion of Transylvania, and was intended to block both the direct route into the Balkan peninsula and that into the Hungarian plain. Among its disadvantages, however, were that it deprived the frontier of the definiteness of a river line, and also greatly increased its length. Its value was speedily tested.

The Goths, a people first recognizable when settled in the Vistula region, by the second century of our era had advanced southwards to the Black Sea, and established dominion over a large area in Russia. They soon separated into two groups, the eastern, or Ostrogoths, and the western, or Visigoths. The former fixed themselves in the Don region, where they were relatively stable and made considerable advances in civilization. The Visigoths, on the other hand, occupied lands near the western end of the Black Sea and proved very turbulent neighbours to Rome. Towards the middle of the third century they advanced upon Roman territory and, in the words of Gibbon :—"The new and unsettled province of Dacia was neither strong enough to resist, nor rich enough to satiate the rapaciousness of the barbarians." Thus they passed on unhindered into what is now Bulgaria. The civilized peoples there resorted to the dangerous plan of offering ransom, with the result that a larger force of invaders soon returned. Other raids were carried on over the Black Sea to Asia Minor, whence the *Ægean* was entered through the straits, and the southern part of the Balkan peninsula penetrated. Eventually the Goths were defeated by the Roman armies, but despite this Dacia was evacuated in 270 A.D. and the Danube line reconstituted. Not very many years later the Emperor Diocletian, who assumed the purple in 284, re-organized the empire with a view to attempting to put a stop to the barbarian invasions.

We need not stop to consider his division-lines, for new and greater invasions were soon to follow against which his scheme proved of no avail.

These were due to the Asiatic Huns, who advanced from

the Volga region like a flood in the fourth and fifth centuries, sweeping all before them. Though their advance to and beyond the centre of Europe was followed by retreat and disappearance, it had a very great effect on history.

In the first place the Huns were true "barbarians," with nothing in common with either the Romanized or non-Romanized peoples of Europe. By this time, indeed, the Goths and other peoples outside the Roman pale had made considerable advances in civilization, so that the cultural gap between them and the Romans had diminished. The advent of the Hun produced a much greater feeling of sympathy between the peoples within and without the empire, which led to alliances and combinations between them. Secondly, the Hun impact gave rise to large-scale movements of people throughout almost the whole of Europe.

The Ostrogoths were naturally the first to feel the pressure, and were largely carried westwards with the general movement of the Hunnish hordes. One group found an asylum behind the bend of the Danube, in what was called Roman Pannonia. But this meant, of course, that the Danube frontier of the empire had been broken through. Near the end of the fifth century Theodoric the Goth succeeded in advancing still further, first to the head of the Adriatic and then to the plains of Continental Italy, where he established himself at Ravenna. Even if the actual movement took place in stages, we can put the total effect shortly by saying that as the result of the inroads of the Huns the Ostrogoths were pushed, along a natural highway of migration, from the Don region of South Russia into North Italy.

The Visigoths scattered under Hun pressure. Some crossed the Lower Danube and placed themselves under Roman protection, being eventually given grants of land in Thrace. Later they moved through the Balkan peninsula from south to north, then passed on to North Italy, and beyond into Gaul and Spain, where they founded a

kingdom which extended from the Loire to the Pillars of Hercules. With the Visigoths Theodoric the Ostrogoth allied himself, and succeeded in establishing, temporarily, a vast western Gothic empire. The speedy collapse of this empire, like the dismemberment of Charlemagne's empire much later, was an indication of the difficulty of holding together widely-spread lands by means of lines of communication overland. For it is the great feature of this period that the Mediterranean Sea was of much less importance than the land routes.

One other group, that of the Vandals, must be mentioned on account of the interest of their line of advance. Their homeland seems to have been between the Vistula and the Oder, just west of that of the Goths. In the early part of the fifth century they moved westward along the Baltic plain, reached Gaul, and, crossing the Pyrenees in 409, entered Spain. Here, however, the Visigoths put up a strong resistance, and twenty years later the Vandals crossed over to the Atlas Lands, and established themselves in Tunisia, whence they carried on extensive sea-raids, attacking even Rome itself. In the sixth century they were finally overthrown by the Emperor Justinian, who later entered Italy and temporarily revived the western empire.

But that the Vandals remained for more than a century in the Atlas Lands, and that while there they were purely pirates, are for our purpose the significant facts. For they meant that the Mediterranean Sea had temporarily lost its importance as a highway, and that in its turn implied that Italy as a whole and the town of Rome had lost their original advantages of position. What remained of Roman power was concentrated in the east, where the Balkan Peninsula and Asia Minor formed as it were a pocket, off the great landways by which one people after another was sweeping through Continental Europe. In other words, the main centre of civilization in Mediterranean Lands had shifted eastwards. There is an interesting analogy to

the fall of Minoan Greece (p. 126) and the resultant rise of the cities of Phoenicia. Just also as Minoan Greece, despite its collapse, prepared the way for Classical Greece, so the Western Roman Empire prepared the way for the later national States of Western Europe.

One other factor in the collapse of the western empire has still to be considered—the Coming of the Arabs. This began shortly after the death of Mahomet in 632, and influenced the history of western Europe profoundly.

The first point to note in regard to the migration of the Arab peoples is that it started from the great peninsula of Arabia, and extended almost at once into all the three arid and semi-arid areas which radiate from it as centre. Thus eastwards the Arabs traversed Mesopotamia, ascended the mountain barrier of Persia and swept through the lands beyond to the confines of India. Westwards the north coast of Africa offered an easy line of advance. Egypt had fallen by 639, though the conquest of the Atlas Lands was not completed till 709. Two years later Spain was entered, and a few short years sufficed for the overthrow of practically the whole of the Iberian peninsula. A further advance into France was checked in 732 by the valour of Charles Martel, but the wave of invasion was in any case nearly spent here.

On the other hand the northward advance of the Arabs from the Arabian centre, which one would have expected to lead them to swing westwards into Asia Minor and Europe, in correspondence with the swing from the Atlas Lands into Spain, had a different history. The greater part of Western Asia Minor was never included within the Arab empire; in the east, that is to say, the reduced remnant of the Roman empire was an adequate guardian of the gate. It succeeded in preserving the treasures of Mediterranean tradition until, many centuries later, another Moslem foe broke the barrier, and led to the scattering of the hoard among the western peoples, by that time fitted to make use of it.

Of the causes of this successful defence we need only say that one was certainly that Persia went down before the Arabs, and Persia had become a powerful foe of the Byzantine Empire. The collapse of one enemy made it easier to face the new one.

In considering the influence of the Arabs, direct and indirect, on Mediterranean Lands, we have to remember that they were originally for the most part pastoral nomads. But, on account of the situation of Arabia, and especially its relations with the Indian Ocean, they had also for long been traders and carriers. They had likewise some knowledge of irrigation, but were unaccustomed to carrying on cultivation with natural rainfall.

Their influence in the different parts of their widespread empire depended upon the natural conditions. Thus in the lands stretching eastwards from the shores of the Levant they soon developed large-scale trading. Baghdad, quite near ancient Babylon, became a great Arab centre, and its port, Basra, constructed by the Arabs in the early part of the seventh century, carried on very extensive sea-trade through the Persian Gulf. From Basra Arab boats went not only to India but also to China, and goods were carried upstream from Baghdad to the great marts of Aleppo and Damascus. Antioch, a city founded by one of the generals of Alexander the Great, became a very important Levantine port (see Fig. 8); the contrast with the conditions at the time when the Phoenicians were great is striking. Extensive trade was also carried on with the Far East by means of the Red Sea, goods finding their way especially to Alexandria for distribution. Thus not long after their great expansion, the Arabs acquired that function as the main furnishers of eastern goods—using the term in the large sense—to Europe, which they kept till the Coming of the Turks and the discovery of the seaway to India broke their monopoly.

Further, as is always the case when towns are liberally supplied with raw material and semi-manufactured goods,

industry, and especially the making of valuable and artistic goods, soon developed in the Arab towns of the Near East. Damascus, Baghdad, Cairo and others became great centres, and the numbers of pilgrims who passed by one or other of these cities on their way to the Moslem holy places assisted to establish a trade in such objects of luxury.

In the western Mediterranean area conditions were somewhat different. In the Atlas Lands the Arabs seem to have been almost purely destructive. Here irrigation is difficult, while the rainfall is precarious and often inadequate, and the invaders from the beginning seem to have been pastoralists rather than cultivators or traders. Their methods of pasturing their flocks, if suited to steppe and desert areas, were ruinous here to the natural forests, and with the loss of the forests soil wastage became more rapid, and the land lost much of its former productivity.

In Sicily, which was not entered till the early part of the ninth century, and in Spain, conditions were somewhat different. The part of Spain which was held longest by the Arabs had deficient rainfall, but irrigation was possible. Both there and in Sicily the summer temperatures allow of a richer growth of vegetation than can be supplied by the winter rains, and Arab irrigation methods led to an increase of the natural resources, due especially to the introduction of new crops, such as cotton, sugarcane, and sweet oranges. Thus the Arabs made a distinct contribution to European agriculture; but they showed little aptitude for the laborious arboriculture of the Mediterranean peoples, and thus could not utilize the land so completely as the latter.

The great longitudinal extension of the Arab empire led to speedy disruption, but with the history of that empire we are not concerned here. It is enough to note that while Sicily was lost to the Normans in the early part of the eleventh century, the Moors, as they came to be called, were not completely ejected from Spain till 1492. In the

Atlas Lands the Arabs remained, though rule passed finally to the Turks. The effect of the Arab advance here may thus be said to have been to remove North Africa from the orbit of Mediterranean Lands from the eighth century till last century, which saw a revival of interest on the part of European peoples, and led to changes which are still going on.

NOTES

The great source of facts in regard to the later days of Rome is of course Gibbon's *Decline and Fall of the Roman Empire*. Reclus, in vol. iii. of *L'Homme et la Terre*, gives an interesting account of the barbarian invasions from the geographical standpoint, with some clear sketch-maps. The annotated maps in Vidal de la Blache's *Atlas Général* should also be consulted.

CHAPTER IX

THE MEDIAEVAL TRADING-CENTRES

The Political Situation in the Mediterranean Area from the eighth century. The Continental Powers, the Arabs, the Byzantines, the Catholic Church. Causes influencing the rise of Trading-cities. Amalfi, Genoa, Venice and Ragusa as examples.

AS we saw in the last chapter, with the Coming of the Arabs unified control of the Mediterranean Sea ceased, and in a sense a return was made to pre-Roman conditions, though Roman rule had led to very marked changes; for the Empire during the period of its existence as a great unit had accentuated the importance of the Mediterranean Sea as a highway, and had also spread the influence of its civilization far beyond the Roman frontiers. The peoples who overwhelmed it in the west had learnt much from it, had developed new needs which still required satisfaction, even though the old organization had fallen.

The mediaeval Trading-cities which we have to consider in this chapter owed their origin to the necessity for maintaining old trade relations under the new conditions. Just as we began our study of the rise of Rome by a survey of the political situation in the preceding period, so we can best appreciate the causes which led to the development of such republics as Venice and Genoa by considering the appearance of the Mediterranean World at the time when they began to emerge from obscurity.

The essential features of that Mediterranean World from the eighth and ninth centuries onwards may be considered under four headings. We have to note first what was happening in Italy, the area in which the cities were placed. Then something must be added to what has been already said in regard to the Arabs, who formed the chief, and for long the only, power based on the southern and eastern shores of the Mediterranean Sea. Thirdly, though the Western Empire had fallen the Eastern or Byzantine one remained, and preserved some of the prestige of the Rome which had disappeared. Finally, another great organization, the Catholic Church, was, if in a somewhat different fashion, also the heir of Rome. The development of the different trading-cities, that is to say, depended upon the interaction of (1) the powers ruling in Italy and the adjacent part of Europe, (2) the Arabs, (3) the Byzantines, (4) the Catholic Church. We may consider each of these in the order named.

The advance first of Germanic peoples under Hun pressure, and then of other groups of known, or assumed, Asiatic origin, such as the Avars, Slavs, Magyars and others, led to the attachment of most of the northern shore of the Mediterranean Sea, west of the Balkan peninsula, and of the northern border of that peninsula, to Continental Europe. But conflict among the different groupings continued for a prolonged period. Thus while Justinian's overthrow of the piratical Vandals in North Africa in the sixth century was followed, in a remarkable reversal of the first process of expansion, by the re-conquest first of South Italy and of Rome, and later of the Italian peninsula as a whole, much of Italy was lost almost at once to the Lombards. In the eighth century that people held most of the interior of Italy, but in the early part of the ninth century Charlemagne succeeded in founding a short-lived empire which extended from the river Ebro to the Elbe, and included much of Italy, peninsular and continental. Charlemagne's empire was divided up after his death, and

it did not include the whole of Italy, parts of which remained attached to the Byzantine empire.

But for our purpose the essential point is that from post-Roman times right down to our own day there was never again a unified Italy, and there was almost constant shifting of boundaries within the peninsula. Thus the individual trading-cities were backed by lands being constantly fought for. There is more than a slight analogy to the conditions under which the cities of Phoenicia rose to greatness, and it is clear that similar problems would present themselves. It was an essential part of the policy of both sets of towns to avoid needless trouble with adjacent land-powers, and there was thus little temptation to extend rule over contiguous territories. If Venice, in the long run, spread its rule over a considerable area behind the town, most of the other Italian republics owned little land outside their town-walls.

If Italy after the fall of Rome became definitely a part of Europe, the Arab advance meant that the eastern, southern and western shores of the Mediterranean Sea became attached to the Orient. The last is a convenient general term to designate the belt of land on the margin of South Europe, North Africa and South-west Asia in which cultivation by natural rainfall is difficult or impossible, and where man must therefore depend upon his flocks, upon the produce of irrigated lands, or upon trade, not yet clearly differentiated from land-raiding and piracy. In the eighth century the Arabs extended along the shores of the Mediterranean Sea from the Gulf of Alexandretta to the Pyrenees. From the ninth to the eleventh centuries they also held Sicily. In so far as they were firmly established on the shores of the Levant they held almost every route by which eastern products could reach the Mediterranean and so the western world. As they advanced to Sicily they controlled, as Carthage had controlled, the seaway to the shores of the Levant. In Sicily and Spain they themselves produced commodities, such as cotton

and sugar, which were definitely of oriental character, and thus greatly valued in the west. From the Atlas Lands and to some extent from Sicily they carried on the Vandal tradition of piracy, plundering maritime towns, seizing ships and carrying off their captives into slavery. They were thus useful allies and dangerous adversaries : the first because they held the chief sources of supply of the goods in which trade with the peoples of Europe could be carried on ; the second because of their control of the sea and their piratical tendencies.

The Eastern or Byzantine Empire was centred at Constantinople, and held Asia Minor ; nominally at least the greater part of the Balkan peninsula ; also part of Italy, as, for example, an area round the head of the Adriatic, including the sites of Venice and Ravenna, another in the Gulf of Salerno, and also the island of Sicily till the Arab conquest. This empire formed the greatest Christian power, politically speaking, within the Mediterranean area. If to a less marked extent than the Arabs, it also could supply valuable eastern commodities ; for these filtered through by landways from Persia and the Far East. More than this, the Byzantine towns had an old history of civilization, and carried on a considerable amount of manufacture, especially of articles of luxury, not yet produced either in the towns of Italy or in continental Europe. If, however, Constantinople could in this way supply much that was wanted in the west, direct trade on the part of the Byzantines was insignificant.

The reasons demand a little consideration. They were both political and economic. The speedy loss of Justinian's conquests in the western area made the Byzantines reluctant to meddle more than was absolutely necessary in the political turmoil there. There were problems enough at home with one barbarian group after another advancing into the Balkan peninsula from the north. Extensive direct commercial relations with the west would have involved political complications, and for these there was

no strength to spare. Then, again, the lands held in the east were varied, and yielded many different kinds of products. They made the Byzantines virtually self-sufficient, the west having nothing to give which was worth the trouble of the journey to obtain. On the other hand, the peoples of the west were eager to purchase what Constantinople had to sell. It was natural that they rather than the Byzantines should be the active agents in initiating a process of exchange. The former, absorbed in their own affairs, showed no unwillingness to allow trade to remain in other hands, and the danger of this course did not become apparent till much later. They favoured those cities of the west which were really or nominally under their control, so that attachment to the eastern empire was a factor in promoting the early growth of some of the cities.

The Catholic Church was the successor of the western empire in so far as it took over its function as an agent for the transmission of Mediterranean traditions to extra-Mediterranean peoples. The ceremonies of the cult also soon lost their primitive simplicity, and the churches first at Rome and later elsewhere came to require the luxuries and products of skilled workmanship which had formerly enriched the palaces of the emperors and the villas of the wealthy. Since Rome was a great pilgrimage centre, a knowledge of the splendours of its churches must soon have filtered through Catholic Europe, arousing a desire everywhere to emulate them. That local princes also were not content that only the dignitaries of the Church should possess material wealth of this kind we know from an interesting little story of the Abbot Benedict, the friend and teacher of the Venerable Bede.

Benedict, who lived in the seventh century, brought back from Rome, after one of his journeys thither, two pieces of silk "of incomparable workmanship." His intention was doubtless to dedicate them to the service of the Church, but Egfrith of Northumbria cast envious eyes

upon their beauty, evidently thinking they were better fitted for a king than a monk. In the end he obtained his desire in return for a grant to Benedict of the land upon which the Abbey of Monkwearmouth was built.

Now, although silkworm eggs had been brought to Europe in the reign of Justinian (in 552), and the silk industry established in Greece, the manufacture of silk goods was slow in taking root in Europe. We may be almost certain, then, that Benedict's pieces of silk came from the East, possibly from China or Persia, while it was from India, we may be sure, that the precious small packet of pepper which the Venerable Bede specified in his will came to far Northumberland. Silks, precious stones, valuable woods, spices, including pepper, drugs and sweet-smelling substances used for incense and perfumes, were the main objects of trade with the Far East. The trade in drugs was largely due to Arab influence, for the Arabs made great advances in medicine, and their lands produced many plants yielding substances which still find a place in western pharmacy. None the less it was, directly or indirectly, through the influence of the Catholic Church that a knowledge of such exotic products spread throughout western Europe. North-eastwards, also, the continent became Catholic to beyond the Vistula, so that there was a wide tract of land in which men turned their eyes Rome-wards, that is, towards the western Mediterranean.

Thus we see that at least from the eighth century, when the Arabs were already losing some of the fervour for conquest which had carried them far and wide from their homeland, great possibilities for large-scale trading existed. In Continental Europe there was a growing demand for oriental luxuries; the Arabs and the Byzantines were potential suppliers of these; the Mediterranean Sea on the one hand and the Roman roads on the other furnished the means of linking the consumers with the sources of supply.

But to start extensive trade, demand must be effective, that is, each party in the transaction must have something

to give. We have already seen that this factor checked trade with the Byzantines. One of the reasons why trade with the Arabs was more active was that in their case there was a demand for the limited number of commodities which western Europe, including the Italian peninsula, had to offer. This arose from the natural—and induced—deficiencies of their own territories. Thus especially in the Atlas Lands and in Sicily there was little timber. Sicily had been early and extensively deforested, and forest reconstruction has scarcely been attempted even down to the present day. The hot, dry summer, the omnipresent goat, form very adequate reasons. We have already seen that in North Africa the Arabs, both directly and through the agency of their flocks, were potent forest-destroyers. But wood was urgently needed, more especially for ship-building, and along the northern shores of the Mediterranean the conditions are more favourable to forest-growth than in Sicily and the Atlas Lands. Timber thus formed one possible export.

Again, the Arabs required large supplies of arms to carry on warfare and raiding. Metals were not abundant in their own lands, and for the smelting of iron charcoal was necessary in addition to supplies of the ore. Both ores and wood for charcoal-making were more easily obtainable in Europe than in the Arab lands, so that we have a second possibility of exchange.

Thirdly, there seems no doubt that in early days at least the Christian cities had no scruples at all in converting their co-religionists into a commodity with which to trade with the Arabs. Venice at least is said to have sold Christian slaves to the Arabs. Charlemagne and some of the popes tried, with apparently little effect, to put down this shameful traffic. Probably, however, neither emperor nor popes appreciated the close relation between it and the trade in luxuries.

It would not appear that in the very early days the trading towns carried on any considerable manufacture

on their own account, with the probable exception of the making of arms. That is, it was some time before they had accumulated sufficient wealth, and sufficient experience, to produce goods as valuable to the Arabs, or to the peoples of the Far East, as oriental goods were to them. There was, however, one raw material—wool—which could be produced in very fine quality in western Europe, and cloth-manufacture was probably one of the earliest industries to develop. As time went on the fine cloths of the west came to be greatly prized, and entered largely into trade.

The next point to be considered is what were the most favourable sites for trading-towns. Since the Arab world was the great source of supply, Italy, with a central position in the Mediterranean, midway between Arab Spain and Arab Syria, and a long coastline furnished with many natural harbours, was particularly suitable. Its suitability was accentuated by the position of Rome as the headquarters of the Catholic Church, for Rome required large supplies of luxury goods.

Italy possessed another great advantage which grew out of the changed relations, since Roman times, with the rest of Europe. We laid stress in the last chapter on the tendency of the Romans to spread east and west from the North Italian Plains, but to regard the block of high ground between the Plains and the Upper Danube as chiefly a barrier area. The great movements of the era of invasions, as was also shown, took place along the North German Plain and up the valley of the Danube. When the organization of Continental Europe began to be carried out, under Charlemagne and his successors, the Central Alps lost their early function as a cultural limit. The Germanic peoples pushed steadily eastwards, especially in the Baltic area, so that there came to be a general similarity of culture north and south of the Alps, with a resultant pull across them. That is, traffic went more and more by the Alpine passes, and ease of access to them was a favouring

factor in the growth of trading-cities. Pilgrims, whether to Rome or to Jerusalem, and later the Crusaders, found the crossing of the Alps the most direct route to their goal, and pilgrim routes, here as always, were closely related to trade routes.

So far we have been concerned with economic factors ; but political ones also exerted influence. Especially while the Arabs held Sicily, relations with them, whether peaceful or otherwise, were of great importance to towns in the western basin of the Mediterranean. For, as we have seen, the Arabs of Sicily commanded the seaway to the eastern Mediterranean.

Again, a nominal attachment to the Byzantine empire was a valuable asset. While it lasted it gave to the towns concerned a relative freedom from outside interference. For it afforded at least a measure of protection against the adjacent land-powers, while the Byzantines themselves were too remote and too indifferent to oppose the growth of virtual autonomy, which in many cases soon became real independence. On the other hand too great proximity to the areas over which the continental powers were extending their sway was a danger, both because of the struggles of rival powers, and because civic freedom was far less easy to win, and interference with trade more frequent.

Without attempting to give a general account of the chief trading-cities, we may illustrate these points by a more detailed study of a few examples.

On the shore of the Gulf of Salerno, not far from Naples, on a beautiful and well-protected site, stands the small modern town of Amalfi, which in the early Middle Ages was a very important centre. Across the Tyrrhenian Sea it faces Palermo ; through the Straits of Messina it has possibility of access to the eastern Mediterranean. It was nominally attached to the eastern empire, but was early allowed to manage its own affairs to a considerable extent, and for a time was independent. The mention of

Palermo reminds us that, from the ninth century, the Arabs were more important to it than the nominal suzerain. Definite alliances with the Arabs were in point of fact made in that century, for each party had something to offer. The Arabs wanted arms, and they also wanted food-supplies when on raiding expeditions to the shores of Italy, and ports into which to run if danger threatened. The fact that the people of Amalfi at times actually took part in Arab raids helps us to realize how little the apparent contrast between "Christian" and "Moslem" was apt to count in daily life, whatever its theoretical significance. In return for their complacence the merchants of Amalfi obtained many trading privileges, including the right to the free use of the seaway, and permission to establish stations in Arab lands. Thus they traded with Kairwan, a very important Arab town in Tunisia, with Syria, with Egypt and, in virtue of their relation to the Byzantines, with Constantinople, where for long they were active rivals to Venice. They were especially concerned in the silk trade, and supplied a part of the Roman market, for they were nearer Rome than was Venice.

In the early part of the eleventh century, however, the town fell to the Lombards, and the citizens called the Normans to their aid to put out the intruders. But the Normans were bitter foes of the Byzantines, and the latter withdrew from the merchants of Amalfi the privileges which they had formerly enjoyed at Constantinople, in favour of Venice. As another factor in the progressive decay of the town we have to note that its position in relation to the growing market of continental Europe was greatly inferior to that of Venice or Genoa.

Genoa and Pisa illustrate another set of conditions. Genoa eventually became the great rival of Venice, but both it and Pisa were relatively late in acquiring importance. There are two main reasons for this fact. The towns are within the area which was successively occupied and ruled by the Goths, the Lombards and the Franks. Thus the

growth of a merchant class was checked, and the acquisition of autonomy was slow. Then both were within the area which could be reached by Arab raids, but were not near enough to be useful allies, like the towns of the Gulf of Salerno. The Arabs also could block their way to the Levant. Their appreciation of the handicap due to the Arab occupation of Sicily is shown by the fact that both towns took part in counter attacks upon the Arabs, which were carried so far as North Africa. The Norman conquest of Sicily was of great importance to them, as it gave free passage down the Strait of Messina. Further, Sicily itself supplied much which Genoa at least could sell at a profit.

But Genoa did not become really great till the time of the Crusades (First Crusade, 1096-99). From the point of view of the trading-cities, if not of the western world at large, it may be said that one of the great motives of the Crusades was to render trade with the Levant more secure. A subsidiary benefit was that the aid of the trading-cities was indispensable to the Crusaders, and the former gained many direct rewards from their participation. It was in the eleventh century that both Pisa and Genoa achieved independence, and both of them were granted trading stations on the Levantine coast as a result of the Crusades, which greatly facilitated their commerce.

We need not stop to consider the position of either town, beyond noting that the latter has, by means of passes, easy access to continental Europe, giving it a great advantage over Amalfi.

Of all the Italian trading-towns, however, Venice was the most important. It was originally founded in the fifth century by refugees from Aquileia, when that town was destroyed by the Huns. Aquileia, though its harbour has long been silted up, was an important port at the head of the Adriatic in Roman times, so that the founders of Venice may be presumed to have had some knowledge of seafaring. The population was increased by new refugees flying before the Lombards in the sixth century, and by the ninth century

Venetian ships had already found their way to the eastern Mediterranean.

The town is placed on islands in sheltered lagoons near the mouth of the Brenta river, the present Grand Canal being believed to be the old mouth of that river. Save that it was well-protected and that the lagoons yielded salt and fish, the natural advantages of site were few. When we come to consider the larger question of situation, however, they prove to be multiple. The town is in the first place backed by the fertile Plains, and, apart from the Brenta, two other rivers in the vicinity, one of great length, give access to the interior. These are the Po and the Adige. Up the navigable Po lay the great fair-town of Pavia to which came merchants from Central Europe, seeking supplies of goods which could not be obtained at home. Pavia is on the Ticino tributary, which drains Lake Maggiore, and has easy access to the Splügen pass, extensively used in early days. Another important pass, the Great St. Bernard, lies further west. The Adige again drains the district of Tyrol, with the easy Brenner and other passes. The Brenner itself was not of great importance to Venice till comparatively late, though it had been utilized in Roman and pre-Roman times.

Southwards there were routes across the Apennines, giving access to Rome, where Venice early competed with Amalfi as a supplier of eastern goods.

Down the Adriatic there was a direct seaway to the eastern Mediterranean. Venice itself was safe from Arab raids, a great advantage over Genoa, and her way to the east could not be so easily blocked by the Arabs. From the Dalmatian shore, also, communication by land with Constantinople was possible. Nor were commodities which could be exchanged for eastern goods lacking. The forests of Dalmatia, according to the usual statement, furnished timber for constructing vessels and for sale; it is more probable, however, that most of the wood came from Croatia rather than from Dalmatia proper. Styria and

Carinthia are rich in iron ore which, combined with the supplies of wood for charcoal, no doubt made the manufacture of arms possible. The numerous ports of Dalmatia afforded admirable re-victualling stations, though Venice had to fight hard to keep down piracy, and to check a Hungarian advance here.

Politically Venice was attached to the eastern empire, but it very early obtained independence and Byzantine interference was never marked. The early connection had some importance because Venice could play off the Byzantines against the powers ruling in the interior of Italy.

During the period when Venice was coming to its strength, indeed, the whole diplomacy of its doges was devoted to conciliating the powers at Constantinople, while avoiding conflict with the Arabs. The days were yet far off when the republic felt itself strong enough to make a direct attack upon the capital of the eastern empire. We may illustrate the point by recounting one or two incidents, trifling in themselves, but indicating the broad trend of policy.

By the tenth century communication between Venice and the Ægean was sufficiently regular to make its merchants carriers of mails between Constantinople on the one hand and North Italy and Germany on the other. In 960 Venetian vessels brought letters which were highly displeasing to the powers in that town, and the natural, if illogical, result was that the weight of official displeasure fell, not on the correspondents, too far off to be reached at the moment, but on the postmen, who had also carried letters recommending the merchants of Venice to the kind notice of the emperor. The doge of the period promptly ordered that no more letters were to be carried on Venetian ships to Constantinople, except those written by himself. History does not say whether the order was carried out; that it could be given was clear evidence of the relations between the two parties.

Not long afterwards the Byzantine emperor sent a strong protest to the doge because the merchants of Venice were supplying arms and munitions of war to the Arabs. With commendable meekness the doge at once promulgated a law forbidding the sale of arms, and also of timber suitable either for the construction or for the arming of Arab ships. It was carefully laid down that ash and poplar planks, not more than five feet long, and wooden bowls and basins, were exempted from the law. As a further proof of zeal the measure was promptly applied to three ships about to set sail for the port of the town of Kairwan, and for Tripoli. Again, we do not know how far the law was merely an attempt to assuage the imperial wrath, or how far it was seriously meant.

The time was coming also when the Venetians were able to show themselves something more than humble suppliants. Towards the end of the eleventh century the Normans were making rapid advances in the Mediterranean area, and Robert Guiscard assembled a fleet in the harbours of Brindisi and Otranto with a view to attacking Durazzo, on the Albanian coast, an important port belonging to the Byzantines. The latter appealed to Venice for the aid of her fleet, and since Venice had motives enough for not desiring the further advance of the Normans, that aid was promptly given. The Venetian fleet defeated the Norman one, and though the naval battle was not decisive, in that it did not save Durazzo from the Normans, yet the republic had shown its power, and was rewarded with presents and trading privileges from the emperor.

In addition to occupying a very special position at Constantinople, Venice had trading relations with North Africa, Sicily, Syria and Egypt, and, despite the constant rivalry of Genoa, became more and more the main carrier of eastern goods, especially of pepper, to Europe generally. Her decay did not begin till the Turks began to cut the ways by which the goods in which she traded reached the shores of the eastern Mediterranean.

Finally, we may add a few words about Ragusa, though the great importance of this town was post-mediaeval rather than mediaeval. Venice and Hungary, as we have suggested above, fought fiercely for the possession of the Dalmatian coast. But the interest of Venice in that coast was due to the need for checking piracy in the Adriatic, and for having relaying stations on the way to the east. She proved very reluctant to let potential rivals, like Zara and Spalato, enjoy the independence which she had won for herself. Ragusa is placed much further down the Dalmatian coast, and Venice's interest in it was spasmodic. The town was not without certain advantages both of site and of situation. Its great disadvantage, as compared with Venice, was that not only was the country immediately behind difficult to traverse, but that beyond was for long of small importance as a market—that is, the wide land relations of Venice were wanting. It was not until the Turks had come, and the enmity between them and the Venetians had become acute, that Ragusan merchants became the main intermediaries between the Balkan peninsula and the west.

NOTES

The great reservoir of facts in regard to mediaeval trade and trade routes is Heyd's *Geschichte des Levantehandels im Mittelalter* (2 vols., Stuttgart, 1879). There has been recently a re-issue of the French edition, *Histoire du Commerce du Levant au Moyen-Age* (Leipzig, 1923); but there is unfortunately no English version. The history of the relations of Venice to the Dalmatian towns is given very fully in Jackson's *Dalmatia, the Quarnero and Istria* (3 vols., Oxford, 1887).

CHAPTER X

THE COMING OF THE TURKS

The Balkan Peninsula at the time of the Turkish advance : Magyars, Serbs, Bulgars, Byzantines. Venice and Genoa and the seaways. The three phases of the Turkish Advance. Its character and direction. Venice and the Turk. Discovery of the seaway to India and its results. Sixteenth-century trade of Ragusa. The Algerian Pirates.

THE last chapter has prepared us for a study of the coming of the Turks, an event which, in its effects if not in itself, both brought the Mediaeval Period to an end and deprived the Mediterranean area of its former importance as the centre of the civilized world.

We have already seen that the essential historical fact about the Turkish advance was that while the Eastern Empire proved an efficient guardian of one of the gates of Europe against the Arab, it failed to keep back the Turk. But we must not too hastily assume that this was solely due to the superior military might of the new foe ; for much had happened in the interval. Two sets of events in particular had led to the steady weakening of the Byzantine Empire. One was the growth in political power and capacity for organization of the Hungarians, Bulgars and Serbs in the continental segment of the Balkan peninsula, and the other was the Crusades.

The Magyars, the Slav peoples, including the Croats and the Serbs, and the Bulgars form the three sets of grassland

and forest invaders who were able to establish themselves permanently in the Balkan peninsula and neighbouring areas. Others, like the Avars and the later Tartars, made temporary incursions only. The Magyars advanced in the north-west at the expense of the Croats. Both became Catholics. Hungary's great antagonist was Venice, for her natural direction of advance was towards the Adriatic. The Bulgars seem to have been a Mongolian people, but contact with the Slavs within the peninsula resulted in the acquisition of Slav characteristics; they speak a Slav language, and like most of the Serbs, as distinct from the Croats, belong to the Greek or Orthodox Church. They appeared in the lands of the Lower Danube in the seventh century, that which saw the appearance of the Croats in Dalmatia. In these lands the Byzantine Empire showed the same weakness as the dying Roman one had shown before the attacks of the Goths, and the Bulgars were able to advance, especially after their conversion to Christianity in the ninth century. In the tenth century they erected, at the expense both of the Byzantine Empire and of the Serbs of the interior, a kingdom of considerable extent. Reaction on the part of the Byzantines followed, but when the Turks came there was a small Bulgarian state.

The Serbs of the interior had enemies on all sides, the Bulgars to the east, the Hungarians to the north and west, to say nothing of the Byzantine empire of which they were nominal subjects; they were in consequence slower than the Bulgars in founding a powerful state. But in the fourteenth century Stephen Dushan (1331-1355) succeeded in creating a great if short-lived Serbian empire, which had its capital at Uskub, in the great central highway, its mint at Scutari, and held a considerable stretch of the coast of the Adriatic between Cattaro and Durazzo. This empire fell to pieces at his death, but the lands which he had conquered did not return to the Eastern empire.

The net result was that whatever the nominal boundaries of the Byzantine empire, the task of the Turks was greatly

facilitated by the fact that the Balkan peninsula was in reality split up into a number of states, not only without cohesion, but divided from each other by a long past of fluctuating conflicts, no less than by origin and traditions.

The Crusades, if in another fashion, had likewise greatly weakened the Byzantine empire. Their prime object was of course religious, the driving of the infidel from the Holy Sepulchre. Since also the first Crusade (1096) started in France, in the country where Charles Martel in 732 had decisively defeated the Arabs, and driven them back to Spain, it may be said to have been a belated attempt to do for the eastern Mediterranean what Charles had done for Gaul.

But even from the first an economic motive was not wanting. The luxuries which reached the west from the region of the Levant gave the peoples of continental Europe a wholly exaggerated idea of the wealth and productivity of this area. It seemed to them a Promised Land, full of gold and treasure. If the idea that the Arabs could be easily conquered, and that the conquest would yield untold wealth, was soon proved a delusion, yet the passage eastwards through the lands of the Eastern empire showed that there at least there was plunder to be got. Thus the fourth "Crusade," in which the Venetians took an active part, was directed, not against the Arab but against Constantinople itself, and the Crusaders made an arrangement beforehand among themselves about the division of the lands they expected to conquer. Constantinople was taken in 1204, and for a time the Byzantines were ejected from Europe, and compelled to take refuge in Asia Minor. A short-lived "Latin" empire was established with Constantinople as centre. After little more than half a century this fell, and the Byzantines returned, but did not succeed in obtaining all their former territories. Venice, especially, was firmly established in the Ægean area.

The part played indeed by the trading-states of the Mediterranean is interesting. Whether the Crusading

armies went by sea or by land they had to be financed and victualled, and where the sea-route was chosen the question of transport arose. It was inevitable, in the social conditions of the time, that application should be made to such communities as Genoa, Pisa and Venice, which had capital, ships and organized trading-routes. These states thus derived considerable indirect benefit from the Crusades, and from the fourth, if Venice did not obtain precisely what she bargained for as the price of her help, her territorial gains were yet great. Thus Crete, the importance of which in connection with sea-trade in the eastern Mediterranean has already been shown, became Venetian in 1206, shortly after the fall of Constantinople to the Crusaders. It was kept for more than 450 years, not being lost to the Turk till 1669. Corfu was occupied about the same time as Crete, but lost almost at once, to be re-acquired in 1386. Other acquisitions were made in the Peloponnesus and among the Ægean islands. In addition to her actual possessions, Venice had trading posts and trading rights in various parts of the east, especially at Alexandria, and even in the Black Sea, though it was Genoa which played the largest part in the trade which came overland to the shores of that sea. Between Genoa and Venice the rivalry was acute, so that here again the Moslem profited by the quarrels and jealousies of the Christian powers.

Further, it is important to bear in mind that Genoa and Venice alike were concerned primarily with transit trade, with conveying to a western market the goods which by various routes reached the shores of the eastern Mediterranean and the Black Sea from the east. Both had relatively little interest in the land areas, except that it was necessary for them to hold strategic points and relaying stations. As we shall see, there came a time when Venice perceived clearly enough that the Turk was her great enemy, and that his advance was strangling her trade. But her prosperity had arisen in a time of political disturbance, and its basis was her appreciation of the fact that even when

land-frontiers are constantly changing, and wars are almost continuous, buying and selling must go on. No larger considerations of world policy were likely to turn her merchants from what they regarded as their main business. Since also Venice's extra-territorial possessions had been won at the expense of the Byzantine empire, she was hardly likely to come to its aid against the Turk.

To complete our summary picture of the position when the Turkish advance began, we have only to add that the Arabs, though their original great empire had undergone disruption and shrinkage, were still firmly established in Syria, Egypt and the North African coast up to and including the Atlas Lands, and had not yet been ejected from Spain, though their dominion there had shrunk to insignificance.

We may regard the growth of Turkish power as falling into three main phases : (1) the establishment of Ottoman Turks in north-west Asia Minor, (2) the conquest of the Balkan peninsula, (3) the hopeless struggle to find a secure northern frontier within Central Europe. We may put the matter in another way by saying that (1) was the threat to the Byzantine empire, that (2) was the replacement of that empire by a Turkish one which included lands over which Byzantine rule had long been nominal, that (3) was the Turkish effort to reach and in some respects to surpass the limits of Trajan's Roman empire in the centre of Europe.

The first phase may be briefly treated. Turkish peoples lived in Turkestan in the sixth century, and were later converted to Islam. The Seljuk Turks entered Persia in the tenth century, and founded there a power which in the next century extended to Asia Minor. During the thirteenth century small groups of Ottoman Turks made their appearance, apparently as fugitives from the Tartars, who were then advancing from Central Asia towards Europe and Asia Minor. Some of these Ottomans, under a capable leader, offered their services to the Seljuks, and were rewarded with permission to settle on the fringe of

Seljuk territory, not far from Brusa, and thus on the margin of the Asiatic possessions of the Byzantines.

But their overlords, the Seljuk Turks, were continuously harassed by the Tartars, and disappeared as a power, leaving the way clear for the Ottomans. These spent the first half of the fourteenth century in extending their limited territories in Asia Minor at the expense of the Byzantines, from whom they took Brusa in 1326, and also in organizing an efficient military force which made them useful allies and dangerous foes. By the middle of the century the Byzantines had been practically ejected from Asia.

The first expeditions of the Ottomans into Europe (1354 onwards), across the Hellespont, were at the invitation of the Byzantines, who were feeling the pressure of Stephen Dushan's advance, and their first European possession was Gallipoli. But before saying something of the second phase, a word may be added on the general direction and characters of the Turkish conquest, which was so strikingly contrasted with the Arab one.

The difference between the two was very marked. The Arabs migrated in mass, and either, as in the Atlas Lands, imposed a pastoral mode of life upon areas which had previously carried on cultivation with natural rainfall, or as in Sicily (especially round Palermo), in south Spain and in Mesopotamia, developed irrigation methods, accompanied by the introduction of new plants. They did, that is to say, bring a culture of their own, not unsuited for parts of the Mediterranean region. Thus the fact that they were not finally ejected from Spain till 1492, after the loss of Constantinople to the Turks, reminds us that parts of that country, alike in climate and in vegetation, are for practical purposes arid and not typically Mediterranean. The Arab advance may indeed be said to have been an attempt to determine by experiment the limits between two natural regions, each fitted for its own type of society.

On the other hand, the Ottoman Turks were never more than a military caste, and the direction of their advance

was not influenced, as that of the Arabs was, by the characters of the lands towards which it was directed. Any area which would yield recruits for their armies, and "cattle" in the form of peasants to till the land, was as suitable as any other. The determining factor in their case was thus ease of conquest.

Now there is no real natural barrier between Asia Minor and Europe, for the straits are easily crossed. The Byzantine empire had proved weak in the former country, and was not likely to put up a stout defence in the latter, while the conflicts in the interior of the Balkan peninsula made an advance to its rear possible. Finally, the Arabs were still firmly established in Syria and Egypt, and, as was soon to be proved once again, eastern Asia Minor was fatally exposed to Tartar inroads. Altogether apart then from the Byzantine invitations, geography and history alike pointed to the Balkan peninsula.

The first conquests there, both in the eyes of its multifarious inhabitants and of those of the rest of Europe, were little more than the replacement of the existing rulers by another power, and changes in frontiers and in rulers had been too frequent to cause much remark either within or without the peninsula. It was not till it became clear that the mastery of the peninsula would necessarily involve an advance beyond its limits that the matter became serious.

Adrianople was taken in 1361, and the Byzantine empire rapidly reduced to little more than Constantinople and the region around it. The attack on the city was postponed, and the next advance made by the great Morava-Vardar highway, the Serbs being pushed northwards. In the plain of Kosovo, the field of the blackbirds, a combined army of Serbs, Bulgars and other peoples of the interior was decisively defeated in 1389, and the way to the north opened. Great advances followed, but a check came with the reappearance of the Tartars in Asia Minor. They defeated the Turks at Angora in 1402, and gave Christendom a respite.

But the Tartars returned to Central Asia a few years later, and the Turks re-organized themselves with great rapidity, and began once again, if more slowly, their career of conquest. Constantinople was taken in 1453, and before the end of the century the Turk was practically supreme within the peninsula. Venice kept the coastal strip of Dalmatia with the maritime towns; Ragusa was independent, even if tribute had to be paid to the Turk; some of the Serbs found refuge in the rocky fortress of Montenegro and preserved their freedom; Venice was still strong in the *Ægean*: with these exceptions the whole of the Balkan lands were Turkish.

Of the final phase of expansion we need say little, beyond noting that the year 1516 saw the appearance of the Turk at Damascus. Egypt was overthrown the following year, and both it and Syria were incorporated in the Turkish empire, which came also to exercise a nominal power right along North Africa, up to and including the Atlas Lands. During the same century great advances also took place in Central Europe, though it was not till the end of the seventeenth century that the empire reached its greatest extent, and then it was already dying at the heart.

The chief interest of the advance through Syria to Egypt for us lies in its effect upon Mediterranean sea-trade, to which we must next turn. But we must not forget that the advance into Europe had also important consequences. The Turks themselves, we may repeat, were never more than a minority. But their presence checked political and social evolution both in the Balkans and in the centre of Europe, with results which are still obvious. We have shown that the *Ægean* area was the first great centre of European civilization. In the fulness of time the torch was handed through Rome to the west, where the native peoples were at least partially Romanized. Rome fell under the impact of the barbarian invasions. But the invaders were in process of adapting themselves, even in the troubled Balkan area, to European conditions when the

Turkish advance caused them to scatter anew, to fall back in some areas practically to the level from which they had started. Many European problems to-day are due to the fact that the west, especially the north-west, belongs to the modern period, while the south-east is still largely mediaeval. The arrested development both of the Balkan Lands and of the adjacent parts of Asia was a factor—though not the chief one—in bringing about the shift of the world centre of gravity to the west.

The main factor was of course the discovery of the seaway to India, which enabled the peoples of the west to obtain directly those much-prized luxuries for which they had hitherto been dependent upon intermediaries. The Great Discoveries not only brought wealth, they gave also a new and wider outlook. The combination of this stimulus with that due to the scattering of Greek scholars after the fall of Constantinople led to the revival of learning. Thus western Europe advanced with great rapidity, while the east stood still or went back.

Vasco da Gama reached Calicut finally in May, 1498, forty-five years after the fall of Constantinople. But this epoch-making journey was the culmination of a series of attempts which had been carried on throughout the second half of the fifteenth century. The motive which led to those attempts was the tumult in the eastern Mediterranean and the progressive advance of the Turk. Before looking at the main effects of Vasco da Gama's journey, let us consider that advance in its maritime aspect.

In what we have called the Byzantine phase the advance, as we have seen, was into the continental part of the Balkan peninsula. Neither the Ægean area nor the west coast came into the first scheme, for the main attack, after the preliminary conquests, was against the Serbs.

This being so, it is clear that at first Venice, the chief sea-power, was not directly menaced, more especially since the Turks, as distinct from their allies and some of their converts, were not seafarers. During the latter part

of the fourteenth and the first part of the fifteenth century, indeed, not only was there little to alarm Venice, but she contrived, in the midst of the general turmoil, to establish herself more firmly in the eastern Mediterranean. We may think of her as hovering on the margin of the conflict, picking up not inconsiderable scraps of plunder. The second occupation of Corfu in 1386; the complete absorption of Euboea in 1390; the acquisition of suzerainty over Zante in 1449, are all illustrations of the general trend of events.

But when the last period of Turkish expansion began, matters underwent a marked change. The northward advance was a direct menace to the homeland; even so early as 1477 a Turkish army had advanced as far as the Piave. Venice was thus constrained to take up the rôle of one of the defenders of Christendom. In 1470 the Turks conquered Euboea, and this was the beginning of a steady loss of Venetian stations in the Ægean and Ionian seas, and of a determined defence of the Dalmatian coast and its ports. Finally, and most serious of all, the Turkish advance through Syria to Egypt threatened to cut the old ways through which goods from the Far East reached the shores of the Mediterranean. Thus Venice was threatened at three vital points at once.

If the policy of the republic showed vacillation and hesitations, we can realize that it had no easy task before it. In so far as the Turks held, or might soon hold, the shores to which the spices and silks of the East came, the original policy of commercial treaties was a sound one. In so far as they threatened Venetian lands whether in the Italian peninsula or on the seaways they were necessarily enemies.

With these facts in mind let us note the immediate results of Vasco da Gama's journey. It was not wholly a commercial success, but King Manuel of Portugal seems to have perceived at once the vast possibilities opened up. Indeed the discovery that the tolls levied in Arabia and in Egypt raised the price of ginger at Alexandria about 270

per cent. above what Vasco da Gama found to be its first price in India was sufficient to arouse the commercial instincts of the Portuguese. Almost at once, therefore, expedition after expedition left Lisbon for India, and by 1504 the price of pepper at Lisbon had dropped to half what the Venetians had previously charged. Even so the Portuguese trade yielded a profit of 85 per cent. on outlay, which left a considerable margin for sea-risks !

Venice had enjoyed a monopoly of the pepper trade for so long that its merchants were slow to believe that it could be threatened. In 1501 some Venetians at Lisbon warned emissaries of the kings of Cananore and Cochin, then present in the city, that Portugal was a poor country, and could not furnish capital to trade with India, unless Venice supplied the necessary money. They added that Venice was and would remain the first power of Christendom, and intended to keep her hold on the spice trade through Egypt and Syria. These were brave words, but at the same time the Venetian ambassador at Lisbon was sending warning messages to the Signoria. He gave it as his opinion that King Manuel was putting all his strength into the pepper trade, and would not rest till the road to India was blocked for the Sultan of Egypt, and Venice was compelled to send to Lisbon to buy her spices there.

Something the Venetians tried to do. They attempted to arouse the Sultan of Egypt to the danger, urged him to try to counter the Portuguese efforts to drive the Arab traders from the Indian Ocean, and to lower his tolls so that they would be better able to compete with the merchants of Lisbon.

Venetian negotiations with the Sultan of Egypt were cut short by the Turkish advance, and Venice was constrained to enter into negotiations with the new lord, and to seek to renew at his hands her former privileges. But the Turks had no great concern for trade, especially trade from which Venice drew most of the profits, nor had they any particular interest in seeing either the Syrian ports or Alexandria

flourish at the expense of the capital. First the Persian silk trade and later the spice trade were diverted to Constantinople. But so far as the spice trade was concerned this mattered little, for the European market was being supplied from another source, and Venice was doomed to steady decay.

In view, however, of what we said in the last chapter about Ragusa it is not without interest to note that, during the sixteenth century especially, much of the trade carried on between the Turkish empire and the rest of Europe went through this town. The small republic, with its very limited territories, was not a menace in the sense that Venice was, and if tribute money had to be paid, the Turks were not unwilling to give privileges in return.

The nature of the trade is interesting, as showing how complete the reversal of the earlier trend had been. At the time of the Crusades, the Byzantine empire had been the home of luxury and wealth, no less than of scholarship and art. The Crusaders had seemed rude and almost barbarian to the citizens of Constantinople. But Ragusan merchants brought from the peninsula hides and skins; wax; apparently some grain; metals, including gold, silver and iron; carpets and coarse woollen goods; leather goods (cordovan) for which Adrianople was especially famous. Broadly speaking, these are the products of an undeveloped or half-developed country. The peninsula imported, especially from Italy, fine woollen and silk goods, glass and artistic objects generally, for to the Turk Italy was the home of luxury and art. In addition a small amount of Far Eastern commodities still filtered through the Balkans by caravan routes, but this gradually became insignificant as ocean routes were more and more firmly established.

It is not without interest also to note that Ragusa had trading stations established within the peninsula, a very interesting contrast to the sea-stations of Venice, and an illustration of the growing unimportance of the Mediter-

anean as a highway. The Ragusans prided themselves on establishing at these stations Catholic churches, founded and maintained by the state, for the use of their representatives and traders. This position as missionaries of western civilization in the stronghold of Islam stood them in good service at Rome, and Pope Paul II. willingly granted them a license to deal with the infidel.

That an empire which now included within its frontiers the whole of the Ægean area, that home of ancient civilization, as well as Egypt and Mesopotamia, with traditions going back to a period before the dawn of history, had to depend largely upon Ragusa and Venice for its contacts with the outside world is a significant fact. The Turks from the beginning were essentially predatory. It has been said that their European conquests usually involved three stages—plunder, tribute, bondage. But the last was but a method by which tribute could be continuously exacted, a systematic plundering which deprived the subject peoples of any motive for increasing or even maintaining the productivity of their lands. Ruin and decay necessarily followed.

But it was not only the eastern Mediterranean, now Turkish, which was becoming less and less able to support civilized man, the whole basin was steadily falling back. No longer did the great world highways converge upon it, and, a sure sign of its relative unimportance, during the latter part of the sixteenth and the early part of the seventeenth century, piracy raged on a scale to which earlier periods offer no analogy. It was nobody's business to police the sea, and the great western powers, struggling for predominance in the new lands and on the great oceans, were not averse to using the corsairs to injure their opponents.

The great pirate coast was now the stretch from Tripoli to Morocco, Algiers being one of the great centres. Other pirates, the Uscoes, were however established on the Gulf of Quarnero, where they attacked impartially Turkish and Venetian trade. But the African corsairs are of interest

as throwing some light on the later stages of Mediterranean history.

When the Moors were finally expelled from Spain and took refuge in North Africa, they revenged themselves by attacking the coasts of Spain from the sea. In the ensuing conflicts the Arabs appealed to the Turks for help. Turkey was organizing a fleet with the help of renegade Greeks, and a great "admiral," Khair-ed-din, or Barbarossa, was sent with his brother to Algiers. Themselves Greeks from Mitylene by origin, they proved very dangerous allies, and proceeded to undertake conquests at the expense of the Arabs, nominally on behalf of their Turkish master. The brother was killed by the Arabs, but Barbarossa established himself in the Atlas Lands, and Algiers became a Turkish sea-base. But the allegiance of the commanders of the fleet soon became nominal, and the ships were more and more used for pure piracy. Slaves and treasure were sought both on the coasts of the sea and from the ships which navigated its waters, while the kidnapping of persons likely to be ransomed by their friends proved highly lucrative. The numbers of the pirates were increased by renegades from all nations, and the evil was not finally put down till the French Conquest of Algiers. But it could not have lasted so long, nor attained such proportions if the Mediterranean had not already lost its early importance.

For our tale is nearly told ; civilized man had outgrown his cradle, had left the Midland Sea for the greater world beyond.

NOTES

For the very complicated history of territorial changes in Europe during and after the Middle Ages reference should be made to Freeman's *Historical Geography of Europe* (Two volumes, text and atlas, London, 1882). There are a number of recent books on the history of the Balkan area, note especially—Allen, *The Turks in Europe* (London : 1919) ; Nevill Forbes and others, *The Balkans : A History* (Oxford : 1915) ; Temperley, *History of Serbia* (London : 1917).

CHAPTER XI

SUMMARY AND CONCLUSION

The three stages of Mediterranean communities : concentration, expansion, collapse. Causes which determined their origin and expansion. Cause of collapse and of general decay of whole area. Contrast with China : the narrowness of Mediterranean Lands. Its consequences to the world.

IF we attempt to sum up in a few words our long historical survey of man in Mediterranean Lands, we may say that each human grouping there has tended to go through the successive stages of concentration, expansion, collapse. The Minoans, the Greeks, the Romans, each in their turn found themselves within an area with special advantages of position. Each group showed a first stage in which its members adapted themselves to the local conditions of climate, soil and relief, with the result that they were able to accumulate some material wealth, no less than to acquire that knowledge which is power. The increase of wealth led to an increase of population, the acquired knowledge made expansion possible. That expansion went on sometimes for centuries, but exhaustion followed. When it came, not only was wealth dissipated, but it often seemed—even if this is largely an illusion—as if the painfully acquired experience of the centuries was lost also, and the next group had to begin from nearly the same level as its predecessors.

More than this, we suggested in the last chapter that from the time of the advance of the Turks and the discovery

of the seaway to India, the Mediterranean basin as a whole showed a steady and progressive decay.

Three great problems thus present themselves. How was it that over a prolonged period the region was so favourable to man that one great civilization after another arose within its limits? Why was it that each civilization had so limited a duration? What is the cause of the general decay which, despite all efforts at restoration, is still so marked in many parts? If the answers to all three questions are implicit in what has been already said, it yet seems worth while to draw the facts together in a final summary.

In the early chapters we studied in some detail the climate, relief and natural vegetation of the Mediterranean area, and showed how beautifully the characteristic mode of cultivation is adapted to the natural conditions. Even though some, perhaps most, of the cultivated plants were derived, and did not originate within the area, the method by which they dovetail into one another so that the farmer's year is all but continuous was a Mediterranean discovery. So also was the device by which the natural water-supply, in soil and sub-soil, could be completely utilized. It was an enormous advantage to Mediterranean man in early days, when he was feeling his way towards these discoveries, that he had to deal with a sharply-defined climate with a definitely-limited distribution.

Look for a moment by way of contrast at the vast central plains of the United States. From the Canadian border to the Gulf of Mexico, the climate undergoes marked changes in character. But there are no sharp dividing lines, one zone passes so insensibly into the next that the geographer is often constrained, for convenience' sake, to take artificial boundaries, like lines of latitude, for the natural regions. If we look at the crops we find that there is a change in harmony with the climatic change, from the wheat of the north to the cotton, rice and sugar-cane of the south. But there are minor subtleties in addition. Thus the wheat

zone is not continuous, a gap tending to occur between the northern area where it must be sown in spring, and the more southerly one where it is autumn-sown. Now the agriculture of these plains is of very recent origin. The limits of the different crops have been partly fixed by the costly method of trial and error, but the farmers have been greatly assisted by the government departments who have placed at their disposal a mass of statistics relating to average—and abnormal—climatic conditions. In other words they started, not from base-level, but as heirs to the accumulated experience of the ages. The pre-Columbian inhabitants of the plains found the problems involved almost impossible of solution, and it is worth note that most of the crops now grown, except maize and tobacco, are of Old World origin.

Think by way of contrast of the favourable areas in the Mediterranean basin—the island of Crete, the peninsula of Attica, the hill-ringed plains in which the Etruscan cities arose, or the greater one which formed the homeland of the Romans.

In each case there were two climatic zones and two only, that of the plains or basins and their margins, where cultivation could be carried on, and that of the upper hill-slopes which yielded wood, forest products and some pasturage. The natural vegetation made a more or less definite line of demarcation between the two, and in the cultivated area nature proved a very efficient guide to the gardener-farmer, who replaced the native scattered shrubs and trees by useful ones, like vine, olive and fig, and the short-lived glory of the spring flowers by beans and corn-crops. Finally, the sea not only supplied a certain amount of food, but gave a measure of protection, while permitting of a natural freedom of movement which land-areas do not offer. In all such areas, then, the essential lessons of life were easily learnt, and once they were learnt the group could count upon a steady, if not large, margin between production and consumption.

The stage of expansion originated in the dual fact that a slow spread by land from the first centre was not possible, while the sea gave an opportunity of reaching fresh areas of similar characters to the old. The meaning of this statement may be illustrated by a comparison with the interior of the Balkan peninsula, which is so much more definitely continental than the narrower one of Italy.

As the Turkish grip slackened here fugitive Serbs found a refuge in the wooded areas of the north. Settlements were made in natural clearings near water, and such settlements fused together to become in course of time modern Serbia. In this case the natural conditions were uniform over a considerable area, and the possibility of contiguous spread was only limited by the need of security from outside interference, and the group-capacity for clearing woodland in order to increase the acreage of tilled lands. But in Crete, or in Attica, or in the basin of the lower Tiber, the conditions which favoured settlement involved limitation of the productive area. Without the surrounding sea or the encircling mountains the climate ceased to be typical.

Further, while in the case of the Serbs an increase in the population, whether due to a higher birth-rate or to accretion, increased the tilled area, by making fresh clearance of woodland possible, in the Mediterranean area a rise in population figures made either emigration or a search for a new form of wealth essential, for the lands capable of being terraced for cultivation between sea and mountain were of limited extent. The Greeks went to south Italy and Sicily both because the sea offered no terrors, and because the population had reached saturation point in the *Ægean* area. And this is only another way of saying that economically, if not always geographically, the areas suited to Mediterranean man were "islands," with the island peculiarity of suffering from a tendency to over-population.

The phenomenon of collapse may be said to have two aspects, decay at the centre, and disruption, the tendency

of the constituent parts to separate the one from the other. If in the case of Classical Greece, where there was no great political unit—though various attempts at hegemony were made, as by Athens and Syracuse—it was rather a case of loss of touch than of disruption in the strict sense, the principle remains the same.

We may note in regard to the decay at the centre that the fact that, when one grouping succeeded another, the starting-point was usually different in each case, goes far to explain the progressive decline of the whole basin. When Rome occupied the Ægean region its lands had already lost much of their earlier productivity. When the same power came into possession of Sicily and the south of Italy, neither region yielded the large increment which had been the basis of the prosperity of the Greek towns. Thus the successive communities appeared to exhaust the best lands, till there came a time when there were no suitable points from which a fresh start could be made.

In all such cases it is a great temptation to explain the progressive deterioration by the hypothesis of climatic change. There is, however, no definite evidence that the Mediterranean climate has changed notably in historic time.

Another suggestion which has been put forward is that the spread of malaria lowered the vitality of the peoples, and thus led to diminished production. The position has something to be said for it, and yet in the Mediterranean area malaria seems generally to have increased as a *consequence* of the collapse of civilization rather than as a *cause*.

This is not universally true. Thus in the plains of northern India, which are stoneless and markedly level, the great rivers are constantly changing their courses. In ordinary times they tend to meander in great curves, but a period of exceptional flooding may cause a stream to break through in a new channel at the point where the sides of a loop approach. The water in the "cut-off"

so formed may stagnate and become a breeding-ground for mosquitoes. Once infected these may spread malaria to such an extent that the region becomes uninhabitable, and great cities fall into decay. But the Mediterranean region proper has few great rivers or wide plains, and water is generally too precious to be allowed to stagnate in a region where cultivation is being carried on.

On the other hand, once cultivation receives a check, whether as a result of invasion, or by a reduction of population due to warfare or pestilence, malaria may make reconstruction almost impossible. The eclipse of the plain of Thessaly (p. 125), the deadliness of certain Italian sites which once carried large communities (p. 150), are illustrations of this fact.

Since, however, we have seen that the rise of civilized communities in the Mediterranean basin almost always led, sooner or later, to invasion and warfare, it may be said that the distinction we have drawn between malaria as a cause and as a consequence of collapse is one without a difference. In a sense this is true ; but so long as a community flourished it could repel invasions and furnish fighting contingents without allowing the homeland to go out of cultivation, or suffer from inadequate drainage. We know that the ancient Greeks in some cases carried out drainage schemes in a more effective fashion than the later inhabitants of their lands have been able to do, and this seems also true of the Etruscans as compared with the Romans. There was, apparently, a progressive loss of fertility not wholly accounted for by the effects of war and invasions, with the resultant increase in malaria. What has been already said on soil wastage and the slowness of the renewal processes (p. 53) suggests one possible explanation.

It is in any case clear that the initial advantages possessed by certain favoured sites in the Mediterranean area tended to be dissipated, and the shift of the centre of gravity from one area to another spread the zone of diminished fertility further and further through the basin.

The other feature of collapse, the process of disruption, may be explained as due largely to the maritime lines of communication, that is, to the original discontinuity. It was not only that this increased the difficulty of defence ; there was something more. The original expansion was based on similarity. The Greeks went to Sicily because eastern Sicily had many points of resemblance to Greece ; the Greeks of Syracuse went to Dalmatia because they could find there much the same conditions as they had left ; the Arabs advanced from the Atlas Lands to Spain for the same reason. But however close the resemblance it was never perfect, social and economic conditions were necessarily different, as were the relations to the hinterland. With an intervening sea there could be no area of transition to soften the contrast, and the varying problems of centre and margin were bound to have their effect. The marginal areas could be held by force, as Rome held the Atlas Lands ; but then they were exploited and so weakened that they lost the power to resist invasion. In the case of the Arabs the separation of Spain from the rest of the empire followed rapidly on its first conquest, and was quite analogous to the division of the Roman empire into an eastern and western part, each with its own outlook.

All the powers—Phoenician, Roman, Arab, Turkish—who made more or less persistent efforts to convert the basin of the Mediterranean into a political unit failed, Rome being the only one which was temporarily successful. But during the period when she succeeded, her empire was more than a Mediterranean one. In point of fact the ease of communication over the sea, the wide distribution of areas of typical climate round its shores, the central position of the Italian peninsula, and of the city of Rome within it, deceived the rulers of Rome and led them to attempt an impossible task. The basin is not a unit ; its shores belong here to the desert area and there to Central Europe ; only at intervals are they truly Mediterranean. The mountain ring is incomplete, and even where it seems

most formidable, as in the Central Alps, is neither true frontier nor barrier.

But these facts, so fatal to the prolonged domination of a single power, have been of profound importance to the rest of Europe and to the world. The Mediterranean basin was the cradle of our civilization; certain areas within it sheltered man during his period of weakness and inexperience. But its correlated disadvantages, the narrowness and insufficiency of its resources, forced him to seek wider spheres as his strength developed, and his power of modifying his environment increased.

The contrast with the other region in which a great civilization arose, that of China, is striking. It has been maintained, not without some justice, that the Chinese contribution to human development has been almost as great as that of the west. But at the present time the contrast between the size of the areas influenced by the two types is vast indeed. The continuity of Chinese development is associated with the extent of its territorial basis, itself related both to relief—the presence of great plains—and to the wide distribution of a particular type of climate. But just because continuity was possible in a fashion that it could not be in the narrow Mediterranean belt, a world-spread of Chinese civilization did not occur.

From the “islands” in which each arose, the Mediterranean communities tended to spread outwards in all directions. Each in its turn fell, both because of progressive weakening at the centre, and because of the impossibility of checking divergent evolution at the periphery. But the tendency to radiate outwards from a centre meant that Mediterranean influences were felt in ever-widening circles till they reached practically to the confines of the world.

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PROBLEMS AND QUESTIONS

CHAPTER I.

1. Find the latitude of Oran and of Antioch, of Marseilles and of Alexandria, and deduce from the figures the position of the western and eastern basins of the Mediterranean.

2. Compare the Ægean and the Tyrrhenian Seas as regards their water-exits and the forms of the adjacent coast-lines.

3. Give examples in the Mediterranean area of (*a*) coasts backed by mountain ranges running parallel to the coast, and of (*b*) coasts on which transverse ranges abut. Which type is likely to be richer in natural harbours? Which type affords easier access to the interior?

4. What special features does the eastern coast of the Adriatic possess as compared with the western?

5. Trace the distribution of active and recently extinct volcanoes in the Mediterranean area.

6. Obtain from a book of reference the main facts in regard to the distribution of useful minerals in Mediterranean Lands, and show how far it is true to say that these generally occur in plateau regions of old rocks (crust-blocks) rather than in folded mountains built of young rocks.

CHAPTER II.

1. Name some typical maquis plants and describe their characters.

2. Why is the mean annual rainfall higher at Rome than at Athens, lower at Oran than at Algiers?

3. Endeavour to deduce from a general rainfall map of Mediterranean Lands the causes which influence the mean annual precipitation in its different parts, using also a topographical map.

4. In what parts of the Mediterranean area would you expect forests to occur, and why?

5. The olive tree does not grow in the Plain of Lombardy, but is abundant round Lake Lugano. What climatic differences are observable between the two areas, and how can they be explained?

6. In what respects does the climate of S.W. Ireland resemble and differ from the typical Mediterranean climate?

7. Parts of the Mediterranean Lands are swept at times by cold and strong winds, such as the bora of the North Adriatic and the mistral of Provence. Study the characters and causation of such winds, and endeavour to estimate their effects on human life in the areas affected.

8. The drought of the Mediterranean climate is stated to account for the small leaves of plants like heather; but heather is abundant on the moors in this country where the rainfall is abundant. How can this fact be explained?

CHAPTER III.

1. Explain what is meant by transhumance, and show why, and where, it tends to occur in Mediterranean Lands.
2. Analyse the advantages of position of Roman Salona, Spalato, and Trau, as shown on Fig. 1.
3. Why is the goat the characteristic stock animal in the Mediterranean area ?
4. Give example of towns placed on hill-sites and show the advantages of the position.
5. Why is malarial fever associated with marshy lands ?
6. How far is it true to say that Mediterranean man is a gardener and not a farmer ?
7. Name the typical crop-plants of Mediterranean Lands and show how they are adapted to the prevailing conditions.

CHAPTER IV.

1. Distinguish between basin and perennial irrigation, and show why the latter was practised in early Babylonia and the former in early Egypt.
2. Compare the positions of Baghdad and Babylon, Cairo and Memphis, Mosul and Nineveh, and offer explanations for this rise of new towns near the site of old ones.
3. State and account for the difference in the régime of the Nile and the Euphrates.
4. Compare the climates of Egypt and of Mesopotamia and account for the differences.
5. Compare and contrast the climates of (a) Cairo and (b) Baghdad with that of a typical Mediterranean town.
6. In what ways do the conditions of climate and relief help to explain the rise of great political units in Egypt and Babylonia as contrasted with the separate city-states of Greece ?

CHAPTER V.

1. Point out some of the advantages of the sea, as compared with rivers, as a highway of commerce.
2. In what ways did the desert background favour the development of Phœnician trade ?
3. Describe the course of the Leontes and Orontes in relation to the relief of Syria.
4. What do you regard as the great contribution of the Phœnicians to civilization ?
5. State, with illustrations, the main causes which determined the Phœnician choice of sites for their cities.
6. In what ways is it true that the deficiencies of Mediterranean

Lands help to account for the spread of western civilization over the greater part of the world ?

7. Name, with explanatory notes, the chief commodities in which the Phoenicians dealt.

8. Describe, throughout its course, the Syrian Rift valley, and name other examples of such valleys.

CHAPTER VI.

1. What is meant by saying that Greece turns its back on the Ionian and faces the Ægean Sea ?

2. In what ways does the Ægean repeat on a small scale the features of the Mediterranean Sea as a whole ?

3. State and account for the areas of Greek colonisation.

4. What causes stimulated early trade between (a) Greece and the shores of the Black Sea (b) Greece and Egypt ?

5. Explain the advantages of site and situation possessed by Athens.

6. Account for the great differences between the Spartans and the Athenians.

CHAPTER VII.

1. Describe the coast-lines of peninsular Italy.

2. Discuss the causes which led to the long conflict between Rome and Carthage.

3. What advantages of position did Carthage possess ?

4. Why did Rome become increasingly dependent on corn brought from overseas, and what were the chief areas of supply ?

5. Compare and contrast the relief of Italy and of Greece, and the position of Athens and of Rome.

6. Relate the political conditions in Etruria to the relief of the country.

7. What combination of causes enabled Rome to overcome the Etruscans with relative ease ?

8. Discuss the value of the Alps as a protection to Italy.

CHAPTER VIII.

1. Discuss the Roman frontier within Europe in relation to the main lines of migration in the continent.

2. Show, by historical examples, that Spain and the Atlas Lands have always been closely related, and suggest reasons.

3. Offer an explanation of the fact that, in modern times, France and not Italy, nor, save to a minor extent, Spain, is the predominant power in the Atlas Lands.

4. Account for the position of the Vandal kingdom in North Africa.

5. Discuss the effects of the Arab Advance in the different parts of the Mediterranean Lands, in relation to the geographical conditions.
6. Compare the effects of the Barbarian Invasions in the case of Minoan Greece and the Roman Empire respectively.

CHAPTER IX.

1. Account for the present-day importance of Genoa.
2. To what combination of causes is due the fact that Venice to-day does not carry on trade on the same scale as Genoa?
3. Compare the importance of the areas with which these two towns now have direct railway connection through the Alps, indicating the passes utilised.
4. How can one explain the fact that mediaeval Venice strove ceaselessly to maintain her hold on Zara, while she showed little desire to hold Ragusa?
5. What area of great natural fertility lies within easy reach of Amalfi?
6. Describe the precise position of Palermo and explain why it was first a Carthaginian (not a Greek) town, and became later an important Arab town.
7. Where did Venice obtain the wood with which she is said to have supplied the Arabs?
8. Why was there such a demand for pepper in Europe during the Middle Ages?
9. What use was Crete to the republic of Venice? (The island was taken in 1206 and held till 1669.)

CHAPTER X.

1. How was it that the Eastern Empire could defend itself successfully against the Arab, but not against the later Turk?
2. What geographical and historical facts help to explain the slow growth of national states in eastern as compared with western Europe?
3. Discuss the trade of Ragusa in the sixteenth century as compared with that of Venice some centuries earlier, and explain the differences.
4. What changes in Central Europe help to account for the limited extension westwards of the Tartars and Turks as compared with the earlier Huns?
5. Give some account of the Barbary Corsairs and of the causes which enabled them to carry on their depredations over so long a period.

The MEDITERRANEAN



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